DOCUMENT RESUME

ED 258 683 PS 014 866

AUTHOR	Strobl, Catherine; Van Domelen, Nancy
TITLE	Off to a Good Start: Practical Nutrition for Family Day Care.
INSTITUTION	Colorado State Dept. of Education, Denver.
SPONS AGENCY	Department of Agriculture, Washington, D.C.
REPORT NO	ISBN-0-9606862-0-7
PUB DATE	82
NOTE	142p.
AVAILABLE FROM	Wildwood Publishing, 1800 Gaylord Street, Denver, CO 80206 ($7.95).
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	Consumer Economics; Early Childhood Education; *Eating Habits; *Family Day Care; *Food; Guidelines; Health; *Nutrition; Nutrition Instruction
IDENTIFIERS	Meal Programs; Recipes (Food)

ABSTRACT

Written for adults and children, this basic nutrition resource book informs parents and day care providers about the importance of good nutrition, aids them in teaching basic nutritional concepts to children, and provides practical ways to use nutrition information in daily life. Some of the key elements include eating guidelines for adults and children, practical advice on consumer decisions, and helpful hints for meal planning and food preparation. Activity sections that follow most of the informational sections suggest activities that are appropriate for preschool-age children, are easy to do in the day care home, and cover most of the major concepts presented in the book. Recipes, scattered throughout the book, demonstrate how the basic nutritional ideas can be applied in the kitchen. Along with each recipe is a chart to aid United States Department of Agriculture (USDA) Child Care Food Program participants in determining how each food fits into their daily eating pattern. The chart relates the size of serving needed to meet one or more of the USDA food requirements for children 3 to 6 years of age. Recommended serving sizes are included. (RH)

****
*   Reproductions supplied by EDRS are the best that can be made   *
*   from the original document.   *
****

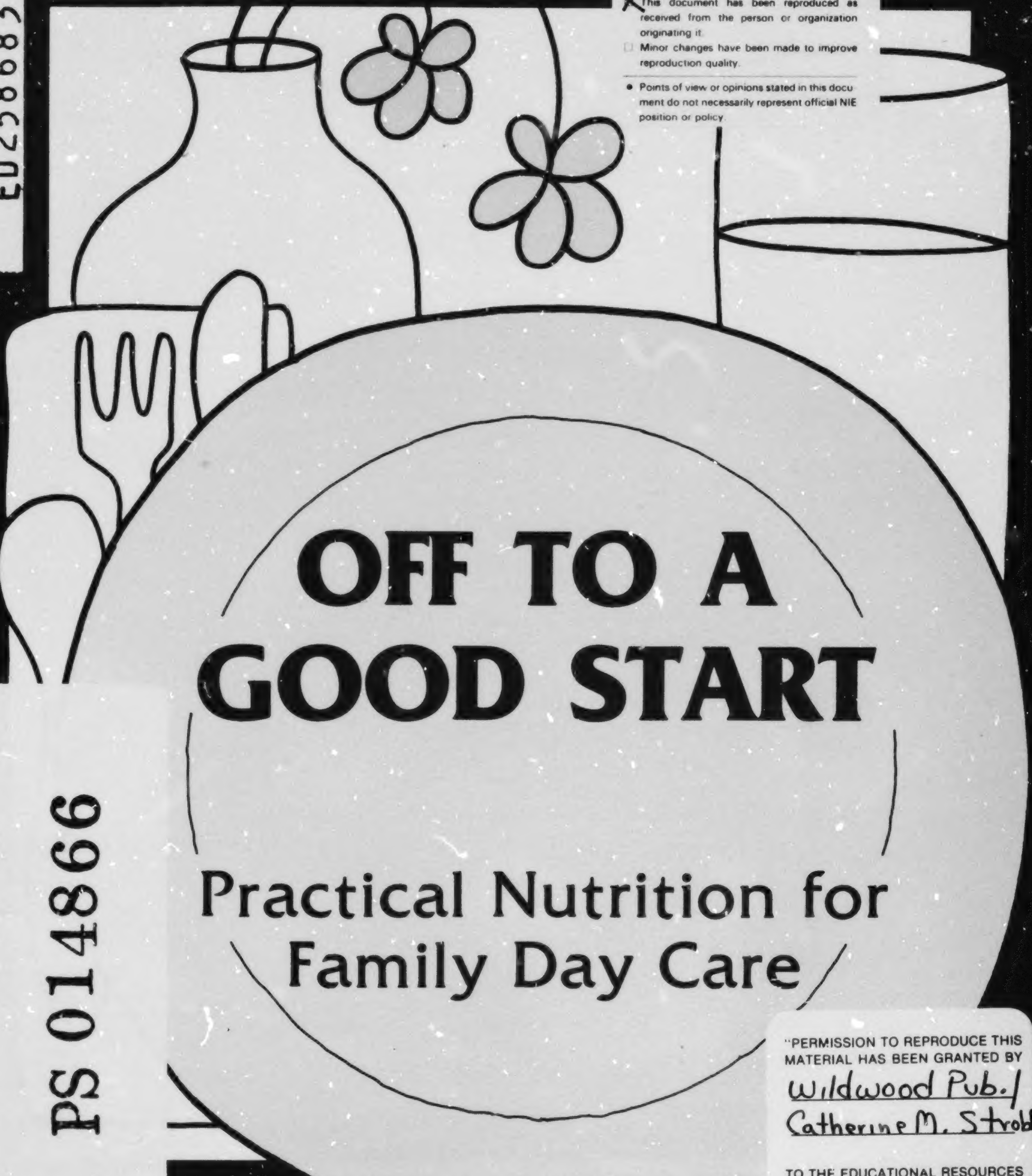
ED258683

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.



OFF TO A GOOD START

Practical Nutrition for Family Day Care

PS 014866

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Wildwood Pub./
Catherine M. Strob
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

OFF TO A GOOD START

Practical Nutrition for Family Day Care

Catherine Strobl and Nancy Van Domelen
Illustrations by Heidi Sparks

PS 014866

Off to a Good Start

Practical Nutrition for Family Day Care

By Catherine Strobl, M.P.H., R.D.
and Nancy Van Domelen

with Illustrations by Heidi Sparks

Colorado Department of Education
Calvin M. Frazier, Commissioner
Denver, 1982

The Nutrition Education and Training Program of the United States Department of Agriculture is available to all individuals regardless of race, color, national origin, sex, or handicap. Persons who believe they have been denied equal opportunity for participation may write to the Secretary of Agriculture, Washington, D.C., 20250.

Off to a Good Start was produced by the Wildwood Child Care Programs which sponsors the United States Department of Agriculture Child Care Food Program in Colorado. Wildwood provides nutrition education and training to over 2500 day care providers statewide. The goal of Wildwood is to improve the nutritional habits of children in family day care.

The funding for this book came from a Nutrition Education and Training (N.E.T.) grant under the supervision of the following people:

Mary Kay Jerman, R.D., Consultant, Child Nutrition; Nutrition, Energy, and Traffic, C.D.E.

Daniel G. Wisotzkey, Executive Director; Nutrition, Energy, and Traffic

Roy G. Brubacher, Assistant Commissioner; Office of Field Services

Calvin M. Frazier, Commissioner; Colorado Department of Education

Colorado State Board of Education:

Dorothy Gotlieb, Chairman (First Congressional District)	Denver
Jacquie Haughton, Vice Chairman (Second Congressional District)	Lakewood
Frank J. Ricotta (Third Congressional District)	Pueblo
Donald D. Ament (Fourth Congressional District)	Sterling
J. David Huskin (Fifth Congressional District)	Englewood

Copyright 1982 by Wildwood Child Care Programs, 1800 Gaylord, Denver, Colorado 80206

Fourth printing — January, 1984.

Library of Congress Catalogue Card Number: 81-52802

ISBN: 0-9606862-0-7

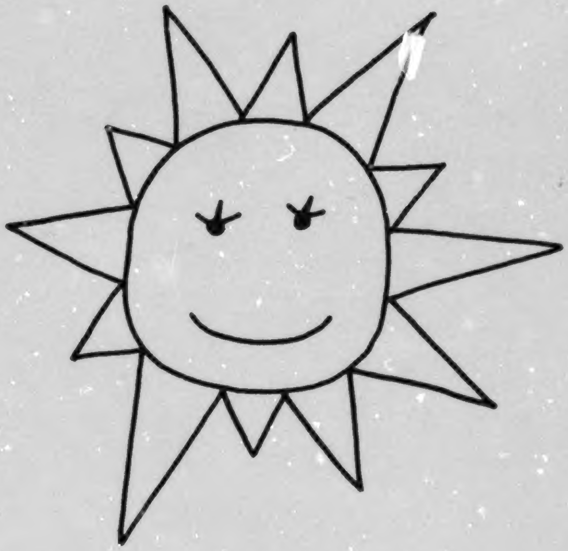
Printed in the United States of America by Quality Press, 3962 South Mariposa, Englewood, Colorado, 80110.

Additional copies are available from: Wildwood Publishing, 1800 Gaylord, Denver, Colorado 80206. (303) 355-8300.

Acknowledgements

A special thanks goes to the staff of the Wildwood Child Care Programs for their assistance and overall support of this project:

Candace Allen, Donna Allen, Gail Allen, Beatrice Bailey, L.P.N., Marilyn Bennet, Kathy Boyles,Penny Bryan, Jan Brown, R.D., Trina Cannon, Linda Carlson, R.D., Linda Davis, Linda Jones, Don Krasniewski, Patty Mettler, Patricia Place, Jeri Rankin, Chuck Schwendeman, Mary Jo Shapport, Judy Shively, Nancy Sussman, Donna Uhlrich, R.D., Judy Vinzant, Judy West, Louise Whitney, M.S., Bea Zissel.



Appreciation is also extended to the following individuals for their help in the research and development of this book:

Guen Brown, Ph.D., Chairman of the Department of Food and Nutrition, North Dakota State University, Fargo, North Dakota.

Connie Auren, M.A., R.D., Director of Nutrition Services, Tri-County Health Department, Englewood, Colorado.

J.L. Horn, Ph.D., Professor of Psychology, University of Denver, Denver, Colorado.

Dedicated to Day Care Providers and Their Children

Table of Contents

Introduction

Chapter 1 — Do You Know How Important You Are? ... 1

Family Day Care—A Wave of the Future ... 2
Learning About Nutrition and Health ... 5

Chapter 2 — The Basics of Nutrition ... 11

What You Don't See Is What You Get ... 12
Carbohydrates For Energy ... 13
Protein—Jack-Of-All-Trades ... 17
Fat—A Lot There To Talk About ... 21
Vitamins—A Little Goes a Long Way ... 25
Mining Our Food For Minerals ... 29
Water, Water Everywhere ... 31

Chapter 3—Foods For Balance—Foods For Moderation ... 33

"Chews" Foods Wisely ... 34

Foods For Balance:

Grains ... 40
Fruits and Vegetables ... 49
Beans, Nuts, Seeds ... 57
Meat, Poultry, Fish ... 66
Milk, Cheese, Eggs ... 78

Foods For Moderation:

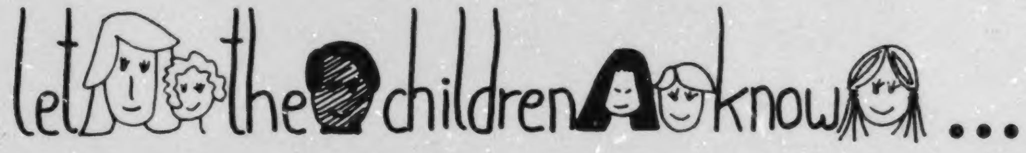
Fats ... 86
Sweets ... 89
Salty Foods ... 93

Chapter 4 — The Good-Food Action Plan ... 97

Being a Smart Consumer ... 98
The Science of Menu Planning ... 104
The Art of Grocery Shopping ... 107
Food Safety From All Angles ... 111
Kitchen Wisdom—Tried and True ... 117
Conserve Energy—Yours and the World's ... 121
The Good-Food Action Plan ... 127

Soup
Beans
milk
Peanut Butter

Table of Contents—Activities for Children


let the children know ...

Foods For Balance—Foods For Moderation

There are many different kinds of foods to eat.
Foods can be placed in groups: breads and grains,
fruits and vegetables, milk, meat and meat alternates 38

We need to eat breads and cereals every day to stay healthy.
There are many different kinds of breads to eat.
Sweetened cereals are not as good for us as unsweetened cereals 47

We need to eat fruits and vegetables every day to stay healthy.
We should eat many different kinds of fruits and vegetables 54

Beans, nuts, and seeds give us lots of energy and make us strong.
Some foods are "partners" and should be eaten together 64

Animals give us food to eat.
Meat, poultry, and fish contain protein which makes us big and strong 75

Milk helps us grow and makes our bones and teeth strong.
Eggs are good to eat 84

Foods with lots of fat, sugar, or salt are not good for us 96

The Good-Food Action Plan

Some foods are "junk foods" and are not good to eat 103

Food comes from many sources.
Buying food is fun 110

It is important to have clean hands before eating.
If foods spoil, they shouldn't be eaten.
Non-food items shouldn't be eaten 115

Everything has its own place in the kitchen.
We can all take part in mealtime preparation 120

Food preparation is fun 125

Introduction

Let's get off to a good start. For some of you, this book may be the beginning of a new awareness regarding nutrition. For others, it may be a reacquaintance with already established practices. Wherever you start, the goal is the same — good nutrition for children.

This book has a three-fold purpose:

1. To inform you as day care providers and parents about the importance of good nutrition for yourselves and your children;
2. To help you instill these same basic nutritional concepts in your children;
3. To provide practical ways to use this information in your daily lives.

Off to a Good Start is written for both adults and children. For adults, it provides the nutritional base needed for raising healthy children. For children, this information can be passed on indirectly through your example, or directly through very simple words and activities.

We all know the old saying, "Practice what you preach." You are more likely to develop good nutritional habits in your day care children if you apply what you know in your own life. By **teaching** the concepts to your children, you will be strengthening your own set of beliefs in good health. And by **practicing** these concepts, the children will learn from your example.

Involving the Children

Children learn most effectively through active involvement. Therefore, their interest in foods and food preparation should be encouraged. The activities that are included in most of the sections of this book are suited for use with preschool-age children in day care. Through these activities, the children can experience fun and adventure, a sense of cooperation and accomplishment, and begin to understand the relationship of food to health.

The nutrition concepts illustrated by these activities are simply stated for children two to five years of age. They **can** learn what foods are good for them, what foods are bad for them, and how to make proper food choices. They can learn to like and eat many different kinds of foods, which will lay the foundation for a varied and balanced diet in later years. Although a preschooler does not understand why or how a food provides nutrients such as vitamins and minerals, they are able to learn that certain foods make you "strong", "healthy", or "make you grow".

Learning by Doing

Children, as well as adults, learn best by doing. There is an old Chinese proverb that says: "I hear and I forget; I see and I remember; I do and I understand". Hearing and seeing are valuable parts of the learning process which should not be discounted. But **doing** is a necessary part of learning, particularly for preschoolers.

Set a time each day for a food experience. It can be at snacktime, lunch, or a special time set aside for play. As you use these activities, your own day care children will stimulate new ideas for additional learning activities.

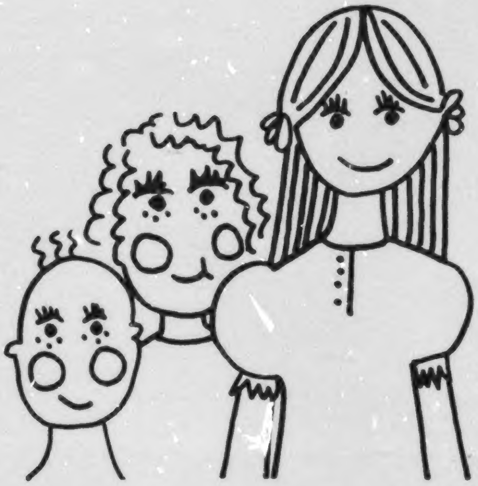
How To Use This Book

Nutritional Information

Off to a Good Start is a basic nutrition resource book. From it you will get the facts along with some entertaining sidelines. Some of the key elements include eating guidelines for adults and children, practical advice regarding consumer decisions, and helpful hints for meal planning and food preparation. Nutrition is viewed as an integral part of health, with a proper balance coming from eating a variety of foods in appropriate amounts.

Activities for Children

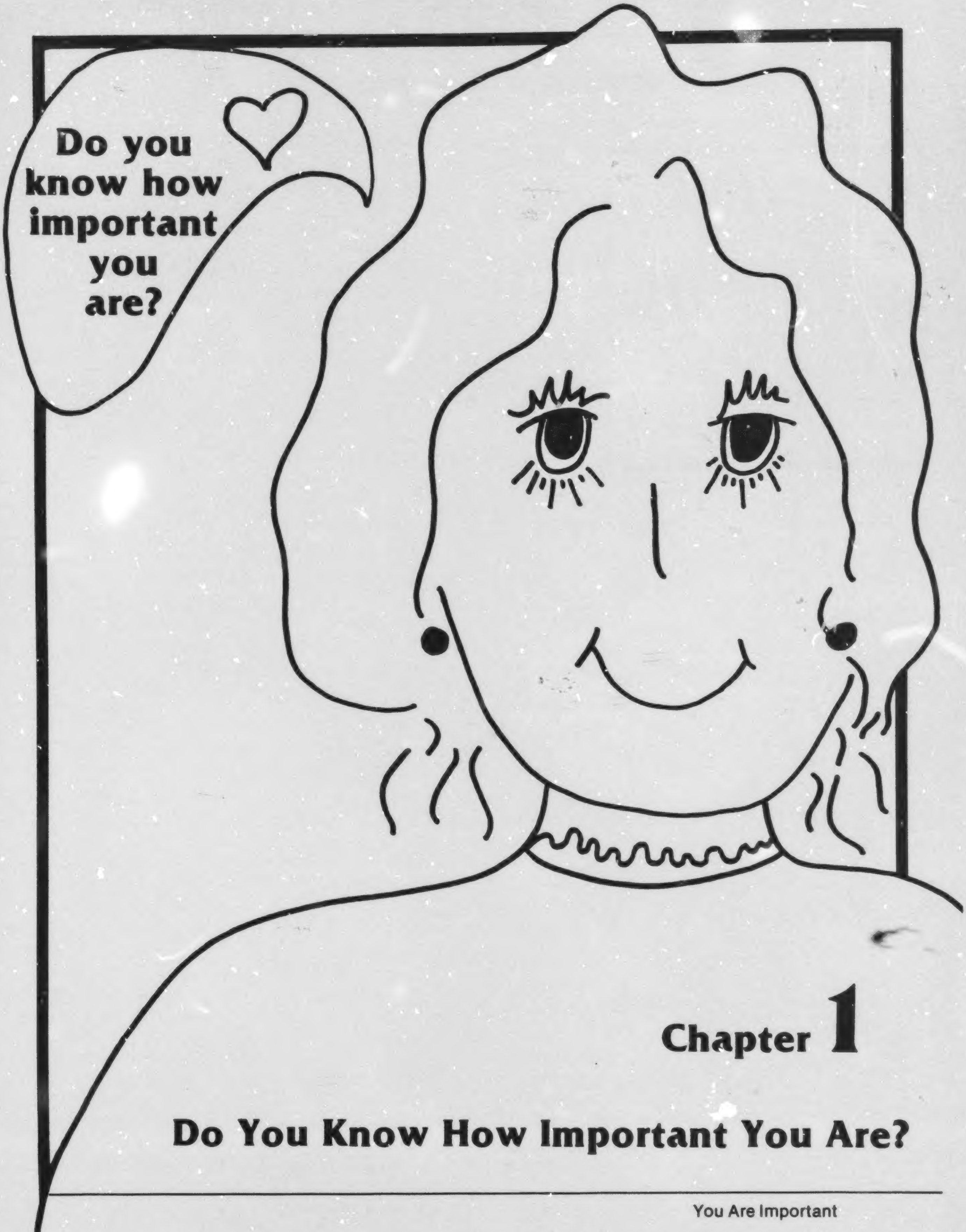
"Let the Children Know . . ." is an activity section that follows most of the informational sections. The activities are directed toward preschool-age children. They are easy to do in the day care home and cover most of the major concepts presented in the book. Children learn best by doing. Active involvement is fun and promotes rapid learning. The activities are also a good review for you since they pinpoint the basic lessons found in each chapter.



Recipes

Recipes are scattered throughout the book. They are included as examples of how you can apply these basic nutritional ideas in your kitchen. They will spark the creative cook in each of you. But don't stop with these recipes. There are many new and exciting cookbooks on the market that can guide you toward a better diet.

Along with each recipe is a chart to aid USDA Child Care Food Program participants in determining how each food fits into their daily feeding pattern. This chart will tell you the size of serving needed to meet one or more of the USDA food requirements. These figures are determined for the three to six-year-old age group. You will need to make adjustments for the number of children the recipe will feed if you are serving younger or older children. The recommended serving sizes are included in Chapter 1.


Do you know how important you are?

Chapter 1

Do You Know How Important You Are?

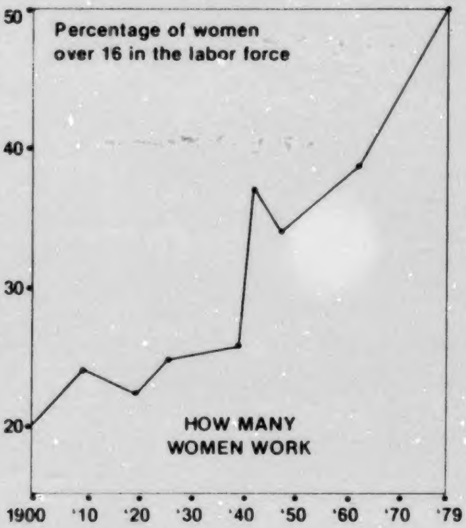
Family Day Care—A Wave of the Future

Times are changing. In 1950, only one out of five mothers with children under 18 were employed. By 1979, this figure had changed to over half of the mothers in the work force. Do you remember when mothers would say, "I'll go back to work as soon as the kids are in school"? Well, those days are gone! The biggest change in women's employment rates is among mothers of children less than six years of age. From 1950 to 1970, their employment tripled from 14 to 45%. It is estimated that by 1990, half of all women with children under 6 will be working.

Today, working mothers of young children have 7 million small children to be placed in day care, left with relatives, babysitters, or in nursery schools.

The Demands for Family Day Care

Family day care is the most widely used form of day care in the United States. Almost half of the families that use day care for more than 10 hours a week use family day care. One-third choose substitute care in their homes, and the rest send their children to centers, nurseries, Head Start, and other preschool programs. Over half of the full-time family day care children are under 6 years of age; two-thirds of these children are 3 years of age and under. So family day care fulfills the need for child care for infants and toddlers. But surprisingly enough, family day care is also the most common mode of care for school age children between 6 and 13.



If you're a provider offering family day care services, don't expect this trend to slow down. The demand is expected to continue for the next 20 years, particularly for women with children under three.

And if you're a parent of young children, you are part of a group that has shown a distinct preference of family day care over centers or other group facilities for infants and toddlers.

Description of Family Day Care

Family day care is child care that takes place in a private home other than the child's own. Because the structure is fairly informal, there is variety in arrangements that can be made between the family and their day care provider, which is one of the popular aspects of family day care.

Licensed day care homes are required to meet health and safety standards for children. If you have met state and local day care requirements, your licensed status allows you to receive various benefits, such as participation in the Child Care Food Program funded by the United States Department of Agriculture, child care training, or the local day care association activities.

The "Average" Day Care Setting

Describing things in terms of "average" is very risky business. Just like the man who kept his head in the freezer and his feet in the oven so he would, on the average, feel just right. But averages can give us a rough idea of what's what. So let's proceed with some day care averages.*

- A typical family day care home has one provider in charge of a group of children. The average group size is 3.5 children, excluding the provider's own children.
- Overall, 90% of the providers care for 6 or fewer children; 50% care for 3 or fewer.
- Four out of five of the children in a day care home are of the same ethnic group as the provider.
- Seven out of ten children are in full time care (30 or more hours a week).
- Most licensed providers see their job as permanent; almost half of the unlicensed providers see their job on more of a short-term basis.
- Almost 40% of the families that use family day care are single parent families.
- Parents most frequently express concern about the quality of food served to their children.
- Parents prefer a "learning" environment over a "play" environment by a ratio of 3-to-1; they also select an informal, unstructured learning environment over a structured setting by 3-to-2.
- Sixty percent of parents feel that family day care fees are appropriate; also, 60% would be willing to pay more for the same services.

So if these are typical parents and day care providers, you might ask yourself, "How do I stand on the average?"

---

*Information from: **Family Day Care in the United States: Executive Summary.** Final report of the National Day Care Home Study. United States Dept. of Health & Human Services. DHHS Publication No. (ODHS) 80-30287. pp. 15-24

Benefits from Family Day Care

Family day care plays a major role in child development and has a good track record to show for it. The benefits from family day care are many.

Parents feel that there is social growth from day care because their children are able to interact with other children. They also note improvement in language and thought processes from day care exposure. The homelike atmosphere has a special benefit—parents think that the children are less likely to miss their own home.

Overall, providers spend almost two-thirds of their day in child-related activities; and half of this is spent in teaching, playing, or helping the children. Only 4% of the provider's time is spent on directing or controlling children. This indicates that disciplinary behavior is a very small part of the day.

The amount of interaction between provider and parent is unusually high in family day care. Parents and providers are mutually interested in the children, which allows the opportunity to develop a friendship between adults.

Do You Know How Important You Are?

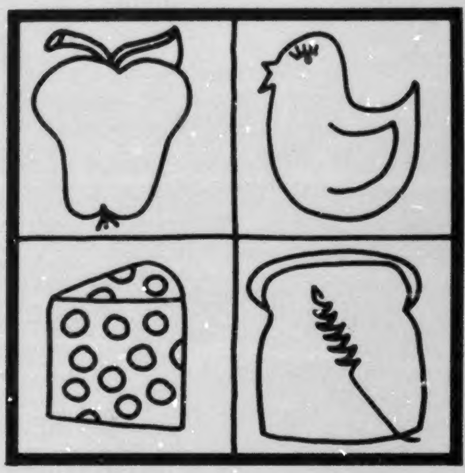
Whether you are a day care provider, a parent of young children, or both, you are an important person. Can you think of any work that is more important than caring for children? They are our future. There is no one on earth that has never been a child and has not needed the guidance and nurturing of adults. It is said that the first five years of development are the most significant in our lifetime.

* * * * * *

This book is written to assist you in improving the nutrition and health of your children. Home or day care setting is an **ideal place** to begin. And **you** are just the right person to do it!

Learning about Nutrition and Health

Good nutrition is part of the bigger picture called "health". The focus of the book is on nutrition because we consider it to be one of the most important elements of health in regard to children.



How is Nutrition Related to Health?

Food keeps us going. We need food like plants need water and sunshine. You've seen a plant wither and die on rocky soil. We also "wither and die" on foods that don't make up a balanced diet.

There is a real concern in America about the quality of our diets. Did you know that 6 out of the 10 major diseases in the U.S. are diet-related? That's nothing to sneeze at! Many medical professionals think that with a few dietary changes we can prevent such diseases as heart disease, obesity, high blood pressure, and tooth decay.

There are also a number of minor health concerns that may be influenced by diet. We've all had our bouts with headaches, constipation, indigestion, allergies, "low energy", skin disorders, poor nails and hair, and so on. The next time you have symptoms for any of these problems, take a look at what you've been eating.

Amount of Money Spent Annually on Diet-Related Diseases in the United States.

	Dollars (Billions)
Dental Disease	$3
Diabetes	4
Cardiovascular Disease	10
Alcoholism	20
Digestive Diseases	3
	$40

Maintaining the Balance

The key word is **balance.** Balance applies to nutrition because a good diet comes from eating a variety of foods. Nutrition plays a major role in health in general.

Physical fitness complements good nutrition. Just as it takes the proper fuel to run the car, it takes the right kinds of foods to fuel the body for exercise. The reverse is also true. Without physical activity, our food goes to "waist". Diet and mental well-being are also part of the balancing act. Food is better digested and assimilated if we are in a pleasant frame of mind.

Health through good nutrition comes from maintaining the balance. It is like walking a tightrope. Each step is calculated, and the feet are doing the critical moves. But the whole body must be in tune, or down we go. Children seem to have a natural sense of balance. Their buoyancy and flexibility give them an edge on tightrope walking. That's why children are a perfect audience for lessons in nutrition.

Children - Our Most Receptive Audience

Young children have an openness for learning which makes early childhood a perfect time to begin to teach good nutritional habits. Preschool children have eating habits that are not yet fixed. They are still impressionable, have few food biases, and are eager to learn. Children have to be educated to know which foods are good for them to eat. Food habits which build good health are not acquired naturally; they are learned.

You may be thinking, "Why start at childhood?" or "My children are healthy; what's the big deal?" The behaviors we adopt in childhood seem to persist into later years. You all know how hard it is to break a bad habit. It's much easier to begin with good habits in the first place. Another reason for starting nutrition education early is that we don't really know when some diseases actually begin, but some may grow out of patterns established in childhood.

Nutrition Education Starts With Eating

A big part of the nutrition education for an infant or young child comes from what the child eats. Children learn from experiences – by doing, seeing, touching, sensing, feeling. Had you ever thought that the cooked oatmeal for your 2-year-old was a lesson in health? If a baby spends 2½ hours a day eating, the total will be over 1000 hours a year – as much time as a college student spends in classes in two years of full time study. You can think of yourself as a teacher instead of a cook. During feeding, the child not only gets good food for growth and development; he or she learns what to expect as food.

The Child Care Food Program Sets a Standard

As a licensed day care provider, you are eligible to participate in the Child Care Food Program through the United States Department of Agriculture. This food program reimburses providers for partial or total food cost if their feeding pattern meets the USDA Minimum Nutritional Requirements. Besides the monetary benefits, participants receive nutrition education and an opportunity for increased professional contact with other providers.

The Child Care Food Program sets nutritional standards for children. Through research, nutritionists have determined what foods are necessary to eat each day in order to get a complete balance of nutrients in the diet. The USDA Minimum Nutritional Requirements are the "bottom line" because they define what we **must** eat each day to stay healthly. The feeding pattern for the Child Care Food Program meets these requirements. It is therefore a useful guideline for anyone with children because it sets the standard for you to evaluate the nutritional quality of your meals.

Basic Meal Requirements

For infants, the meal requirements for the Child Care Food Program are centered around formula (or breast milk) for the first four months with the introduction of solids beginning at four to six months of age. For children from one to twelve years of age, the meal requirements are built around four food groups: milk, breads and cereals, fruits and vegetables, and meat and meat alternates.

Within each food group there are some foods that are more nutritious to serve than others. If you participate on the program, you will learn which foods are acceptable, which are not acceptable, and which will provide the best diet for your children. Here is a general outline of acceptable foods:

Fluid Milk

Includes whole milk, lowfat milk, skim milk, cultured buttermilk, or flavored milk made from the before-mentioned types of fluid milk.

Breads and Cereals

Whole-grain or enriched breads, cooked grains and pasta meet the requirements for breakfast, snack, lunch and supper. In addition, at snacks and breakfast you may serve dry or cooked cereal. Cookies with whole-grain or enriched flour first on the list of ingredients are a bread equivalent at snack time. (Cookies may not be served more than twice a week.)

Fruits and Vegetables

Fresh, frozen, canned and dried fruits and vegetables meet minimum requirements. In order to count juice, it must be 100% or full-strength fruit or vegetable juice.

Meat and Meat Alternates

Meat, poultry, fish, cheese, eggs, peanut butter, or dried beans and peas are your choices for meeting this requirement.

USDA Child Care Food Program Meal Requirements for Infants

	0-4 MONTHS	4 TO 8 MONTHS	8 MONTHS TO 1 YEAR
BREAKFAST			
1. Infant formula	4-6 ounces	6-8 ounces	6-8 ounces*
2. Infant cereal	0-1 tbsp.	1-3 tbsp.	2-4 tbsp.
SUPPLEMENT			
1. Infant formula or full-strength fruit juice or fluid whole milk	4-6 ounces (formula only)	2-4 ounces (formula, juice only)	2-4 ounces
2. Crusty bread or cracker	— —	0-¼ slice 0-2 crackers	0-¼ slice 0-2 crackers
LUNCH/SUPPER			
1. Infant formula	4-6 ounces	6-8 ounces	6-8 ounces*
2. Infant cereal	0-1 tbsp.	1-2 tbsp.	3-4 tbsp. fruit or vegetable or infant cereal or combination.
3. Fruit or vegetable or combination	0-1 tbsp.	1-2 tbsp.	(included in cereal above)
4. Meat or poultry or fish or egg yolk or cheese or cottage cheese	—	0-1 tbsp. 0-1 tbsp. 0-½ ounce 0-1 ounce	1-4 tbsp. 1 yolk ½-2 ounces 1-4 ounces

*or 6-8 ounces of fluid whole milk and 0-3 ounces of full-strength fruit juice.

USDA Child Care Food Program
Meal Requirements for Children

	AGE 1-3	AGE 3-6	AGE 6-12
BREAKFAST			
1. Milk	½ cup	¾ cup	1 cup
2. Juice or fruit or vegetable	¼ cup	½ cup	½ cup
3. Bread or	½ slice	½ slice	1 slice
cereal	¼ cup	⅓ cup	¾ cup
SUPPLEMENT (Two of the four)			
1. Milk	½ cup	½ cup	1 cup
2. Juice or fruit or vegetable	½ cup	½ cup	¾ cup
3. Bread or	½ slice	½ slice	1 slice
cereal or	¼ cup	⅓ cup	¾ cup
cooked grains and pasta	¼ cup	¼ cup	½ cup
4. Meat or poultry or fish or cheese or	½ ounce	½ ounce	1 ounce
eggs or	½	½	1
peanut butter or	1 tbsp.	1 tbsp.	2 tbsp.
cooked dry beans or peas	⅛ cup	⅛ cup	¼ cup
LUNCH/SUPPER			
1. Milk	½ cup	¾ cup	1 cup
2. Fruits (2 or more) or vegetables (2 or more) or fruits and vegetables to total	¼ cup	½ cup	¾ cup
3. Bread or	½ slice	½ slice	1 slice
grains or pasta	¼ cup	¼ cup	½ cup
4. Meat or poultry or fish or	1 ounce	1½ ounces	2 ounces
cheese or	1 ounce	1½ ounces	2 ounces
egg or	1	1	1
peanut butter or	2 tbsp.	3 tbsp.	4 tbsp.
cooked dry beans and peas	¼ cup	⅜ cup	½ cup

We're All in This Together!

Children follow the example of adults. Have you noticed that it never works to hide your soda behind the toaster as you feed the kids juice? That's why a major part of this book is aimed directly at you, the day care provider or parent. You are the key person who turns the "nutrition theory" into the practice of eating good food. If you aren't convinced that a good diet is right for you, you won't be able to effectively relay that concept to the children.

We're all in this together. You'll find that as you improve your own nutrition and health habits, you'll feel better, be a more effective day care provider, and set a better example for the children.

Chapter 2

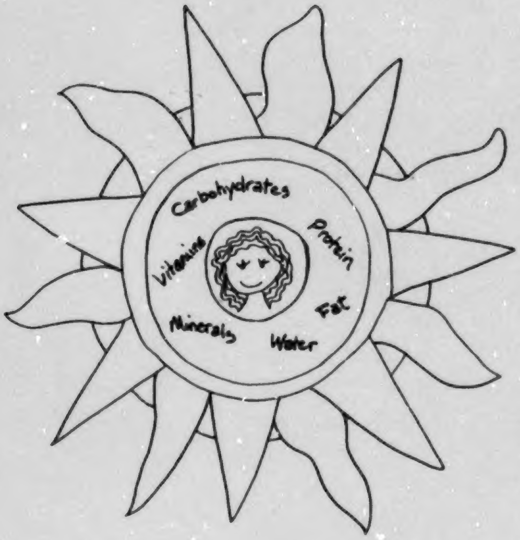
The Basics of Nutrition

What You Don't See Is What You Get

If you hear someone say, "You are what you eat," there is no need to take offense. It doesn't mean that you look like a fish. Nor does it mean that you are that plate of spaghetti and salad you had for dinner last night. Food is taken through digestion and rearranged into skin, bones, muscle, blood, and many other body parts.

This is a continuous process. Inside the body, things are really cookin'! All the parts are constantly being replaced. For instance, your skin peels off daily to make way for new skin. Your oldest red blood cell is no more than four months old, and the lining of your digestive tract will only live to a ripe old age of 3 days.

To keep all this going, we have to eat food. Throughout your life, you will eat some 50 tons of food and drink 10,000 gallons of fluid. This gives you the makings for replacement parts, along with the energy to put them all together and keep the body working.



Nutrients Are the Key

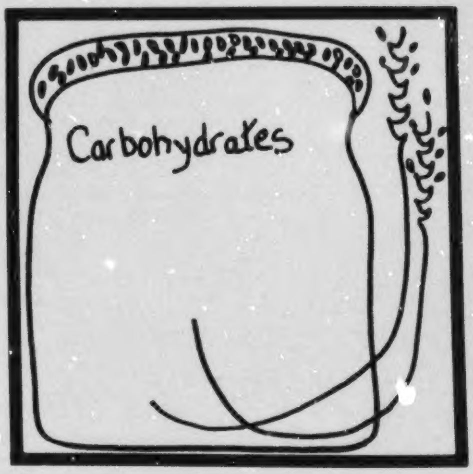
The substances from food that are used to help replenish the body are called nutrients. There are about 50 known nutrients which are grouped into 6 categories: carbohydrates, proteins, fats, water, vitamins, and minerals.

Nutrients aren't apparent when you look at food. You don't see vitamins in an apple or look at a loaf of bread and think, "Now, there's a carbohydrate." Besides, each food is made of a combination of different nutrients. For example, milk has a little bit of everything-carbohydrates, proteins, fat, water, vitamins, and minerals.

Each of the nutrients has its own special job to do to keep us healthy. This is what nutrition is all about. It is the study of the nutrients in foods and how your body handles them.

Carbohydrates for Energy

Carbohydrates are energy nutrients. The body "burns" carbohydrates to release heat and energy in almost the same way that heat and energy are released from burning fuel. Our constant body temperature is maintained from the "inner fire" which comes from the breakdown of foods. The three different kinds of carbohydrates are sugars, starches, and fiber.



How Sweet it is

Sugars are called simple carbohydrates because they are very easy for the body to break down. They are found naturally in foods like fruit, milk, and some vegetables like beets and peas. You've heard that sugar is bad for us, but this is not true of the simple sugars found in whole, unrefined foods. Fruit, vegetables, and milk have, along with the simple sugars, a whole team of nutrients that work hand-in-hand, such as fiber, water, vitamins, minerals, and some protein and fat.

Refined sugar, however, has lost its nutrient team through the refinement process. Sucrose, or table sugar, is pure carbohydrate, which lacks any additional nutrients. That's why they are said to contain "empty calories". You'll read more about refined sugar when we talk about foods that should be eaten only in moderation.

FOODS WITH SUGARS

- **fruits**
- **some vegetables (sweet potatoes, tomatoes)**
- **table sugar (sucrose)**
- **honey, molasses, syrup**
- **milk (lactose)**

Potatoes for Dieting?

Starches are complex carbohydrates found in foods like bread, potatoes, rice, and vegetables. For years, starches have gotten bad press. We have been convinced that they are fattening. So we munch on a steak and cottage cheese-pear salad to lose weight. Since a 3-ounce steak has 220 calories compared to a baked potato which has 90 calories, you can see that replacing starchy foods with meat is tipping the scales in the wrong direction.

One gram of either carbohydrate or protein will give you the same number of calories (4 calories). But that same amount of fat will give over 2 times the number of calories (9 calories). So ounce for ounce, it is fat that makes us fat, not carbohydrates.

FOODS WITH STARCHES

- **grains**
- **legumes (dry peas and beans)**
- **vegetables (potatoes, corn)**

There are problems when the main function of a baked potato is merely to hold our sour cream, or a piece of bread is viewed as a tidy way to eat butter. Notice the difference a little bit of fat makes when it is combined with your carbohydrate source.

I'll have the bread. Hold the 16oz. steak it's too FATTENING!

1 Slice bread	70 calories
with 1 tsp butter	115 calories
1 Baked potato	90 calories
with 2 tsp butter	180 calories
with 1 tbsp sour cream	225 calories

Rather than cutting back on the carbohydrates, substitute something else for the fat, such as unsweetened applesauce for butter or lowfat yogurt for sour cream.

Starches can even be an aid in weight loss. Whole grain bread, beans, peas, and lentils contain bulk or fiber that provides a full feeling but passes through the digestive tract without being absorbed. This is not the case with milk or meat. In fact, many people report a reduction in weight when they switch from a meat-centered diet to a diet which relies heavily on complex carbohydrates.

Nature's Broom

Fiber is a complex carbohydrate that is found in the walls of plant cells. It is the tough structural part of the plant that humans can't digest. Dr. John Kellog (of cereal fame) described fiber as "nature's broom" because it helps the body "sweep" waste from the large intestine. This important role of fiber in the diet should not be underestimated.

What Happened to the Fiber of Our Country?

The fiber in the American diet is not what it used to be. Before the refining of flour, Americans ate about 20 times more fiber each day in bread alone than we do today. Many people think that the lack of dietary fiber contributes to numerous diseases that are common to the American population, such as diverticulosis (bowel disease), cancer of the colon, hemorrhoids, appendicitis, and gallbladder disease.

The Benefits of Fiber

Fiber is beneficial because it absorbs water in the intestinal tract and makes the stools larger and softer. Because of the bulk, stools pass quicker with less strain. Vegetable fiber seems to have the greatest water-holding capacity. Carrot fiber holds 20-30 times its weight in water, whereas bran (from cereals) holds only 5 times its weight in water.

Another benefit from fiber is the lowering of blood cholesterol levels, which may decrease heart disease. Fiber from beans, apples, cereal grains, and vegetables seems to do the best job.

Foods made from refined carbohydrates, such as refined sugar or refined white flour, can be overeaten more easily because they don't contain fiber to provide bulk. Chocolate cake with ice cream may be a brief moment of heaven. But if you trade that 600 calories for equivalent calories in fruit, you would be snacking on 15 apples. And that takes time! So diets that include high-fiber foods can help control weight.

Adding Fiber to the Diet

There are a number of sources of fiber in the diet. Natural sources are whole grains, seeds, nuts, beans, vegetables, and a few fruits. Fiber can also be added to the diet by adding bran which is the outer layer of the wheat kernel.

The fiber from foods in their unrefined state is best because the fiber is in natural balance with all other nutrients in the foods. Supplementation of bran is helpful for some people but less effective than the fiber found naturally in vegetables and beans. Choose high-fiber foods and you can't go wrong.

HIGH FIBER FOODS

- **whole wheat and whole grain breads**
- **bran-type cereals, shredded wheat, oatmeal**
- **wheat germ, brown rice, corn meal, millet, fresh fruits with skin, bananas and berries, dried fruits**
- **raw vegetables**
- **beans, nuts, seeds**

LOW FIBER FOODS

- **white bread, English muffins, soda crackers**
- **refined cereals, cream of wheat or white rice**
- **refined flour, cooked and canned fruits**
- **overcooked vegetables**
- **meats, milk, cheese, eggs**

HOW TO ADD FIBER BACK TO THE DIET*

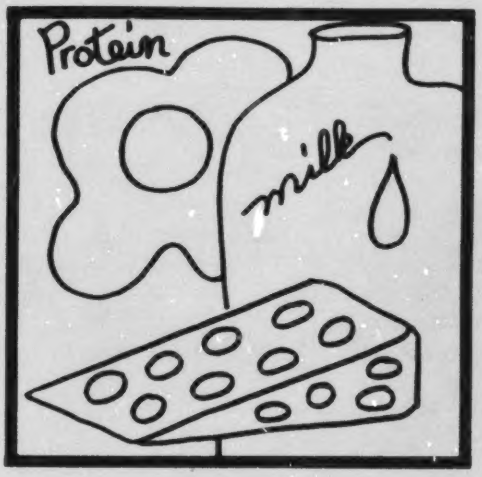
Compare these 2 menus for fiber content. Notice that fiber is present in whole grain cereal, seeds, nuts, beans, and fresh fruits and vegetables. Model your meals after the high fiber diet. We don't want you to end up with a semi-colon!

LOW FIBER DIET			HIGH FIBER DIET
	BREAKFAST (Grams of Crude Fiber)		
1 c K[illegible] High Pro	.1	3.2	¾ c granola and raisins
1 c milk	0	0	1 c milk
¾ c orange juice	.2	.8	medium orange
	SNACK		
⅙ 9" apple pie	.6	2.3	large apple
	LUNCH		
canned beef noodle soup, 1 serving	.1	1.	homemade vegetable soup, 1 ½ c.
bologna or ham sandwich (white bread, 2 slices)	.1	.8	sandwich (whole wheat bread, 2 slices)
10 potato chips	.2	.8	peanut butter 2 tbsp.
2 butter cookies	trace		
	SNACK		
candy bar (chocolate coated type)	0	.5	2 wholegrain sesame cookies
soft drink	0	0	½ c milk
	DINNER		
chicken, 3 oz.	0	1.0	beans and ground beef casserole, ¾ c.
canned green beans, ½ c	.6	.2	brown rice, ¾ c
Jello salad-2 small pear halves	.6	1.0	coleslaw, ¾ c
white roll	.1	1.0	dark bread with seeds
chocolate cake, 1 serving	.1	2.8	large pear
	2.8	15.4	

*Idea for food chart adapted from: Kathy Dinaberg and D'Ann Akel, **Nutrition Survival Kit,** (San Francisco, CA, Panjandrum Press, 1977), pg. 108.

Protein — Jack-Of-All-Trades

Proteins function in many different ways in the body. They make up three-fourths of the solid matter. Your skin, hair, bones, brain, and muscles are all made of different proteins. Proteins build enzymes that help you break down food. They are also part of the red blood cells that carry oxygen around in your body. Inside each cell there is a protein structure called DNA that determines hereditary characteristics. The antibodies in your bloodstream that fight off disease are proteins, too. It is hard to imagine any bodily function which doesn't involve proteins in some form.



How can proteins do all these different things? Their versatility comes from the fact that there are thousands of different kinds of proteins in plants and animals. Protein is made up of a chain of building blocks called amino acids. There are 20 different amino acids that can be arranged in a wide variety of orders and amounts.

To get some idea of how many different combinations this can be, think about all the words in the English language that are made up of only 26 letters. Just a few letters will make many different words. How many words can you make from the letters "s", "t", "a", and "r"?

Of the 20 amino acids which are needed to build proteins, our body makes 12 of them. The other 8 we have to get from the foods we eat. These 8 are called the essential amino acids. (There is one additional amino acid that infants can't make.)

Most animal foods contain all eight of the essential amino acids and are called complete protein foods. Some plant foods are good protein foods but are low in one or two of the essential amino acids. They are called incomplete protein foods. There are ways to compensate for the missing amino acids. By combining a plant that is high in one amino acid and low in another with a plant that has the opposite amino acid pattern, they can together provide a complete set of amino acids. To learn more about which foods make good combinations, refer to "Protein Combining" later in the chapter.

FOODS WITH PROTEIN

- **plants (incomplete)**
  - **grains**
  - **legumes (dry peas and beans)**
  - **nuts**
  - **seeds**
- **animals (complete)**
  - **fish**
  - **chicken**
  - **meat**
  - **eggs**
  - **dairy products**

Enough is Enough

We all know protein is essential for health. From health classes in school, most of us remember hearing that we should eat lots of protein to make us grow. But, contrary to popular belief, additional protein beyond our basic daily need will not make us any stronger, healthier, or grow better.

Here's What We Need

To stay healthy, an adult man or woman needs 55 to 65 grams of protein each day. A 6–12 year old child needs 35–50 grams, and a 1–3 year old needs 20–25 grams each day. Let's translate that into everyday terms. Take a look at the chart below and see how many food servings you need for yourself or your children to meet your daily protein needs.

Food	Grams of Protein
3 oz. meat	21
½ cup cottage cheese	14
1 cup milk	8
⅔ cup cooked soy beans	8
2 tbsp. peanut butter	7
1 egg	7
½ cup sweet potatoes	4
½ cup most vegetables	2
1 slice whole wheat bread or ½ cup cereal	2

In one day, if a child eats, as a minimum, bread (2 gm), 2 tablespoons peanut butter (7 gm), 1 ounce of meat (7 gm), and 2 cups of milk (16 gm), a 1 - 3 year old can meet his or her daily protein requirement.

PROTEIN AVERAGES

1 ounce meat	**7 grams protein**
1 cup milk	**8 grams protein**
½cup beans	**7 grams protein**
½cup vegetables	**2 grams protein**
1 slice bread	**2 grams protein**
1 piece fruit	**0 grams protein**

Here's What We Get

In America, getting enough protein is not a problem. On the average, Americans eat between 1½ to 2 times the amount of protein we need daily. This is true for children, too. The Health and Nutrition Examination Survey (HANES), taken in 1971-72, found that the protein intake for infants and children averaged 2 to 2½ times the amount that is recommended for them.

It is not difficult to accumulate a hefty amount of protein by the end of the day. The following meal patterns will give you some idea of how much protein adults eat without even trying. Remember that an adult only needs 55–65 grams of protein each day.

"LIGHT WEIGHT EATER"	Grams of Protein		"HEARTY EATER"
1 oz cereal, ½ c milk	6	47	2 eggs, 3 oz ham, 1 c milk, 2 slices toast
Chef's salad (hard cooked egg, 1 oz cheese, 1 oz turkey, 1 oz ham)	28	40	quarter-pound hamburger, 1 oz cheese
3-bean salad, 3 oz fish, potato, 1 slice bread, apple	28	46	5 oz ground round steak, potato, summer squash, 2 slices bread, green salad
cookie, 1 c milk	11	11	2 cookies, 1 c milk
TOTAL	80	144	

Here are two normal meal patterns for children which illustrate the same idea – that children are able to get more than enough protein in their daily diet. Remember that 1 - 3 year-olds need 20 -25 grams of protein, and 6 - 12-year-olds need 30 - 50 grams.

	AGES 1 TO 3 YRS.	Grams of Protein		AGES 6 TO 12 YRS.
Breakfast	½ c milk, ¼ c applesauce, 1 pancake	7	13	1 c milk, ¼ c cornflakes, orange juice
Snack	orange juice, graham crackers	2	3	apple juice, bran muffin
Lunch	½ c macaroni/cheese, ¼ c green beans, ½ c milk, ½ banana	15	29	1 c milk, 3 tbsp. peanut butter, ½ c green beans, 1 banana, 2 slices bread
Snack	1 tbsp. peanut butter, celery stick	4	11	1 c milk, 2 cookies
Supper	1 oz meat loaf, ¼ c potato, ½ slice bread, ½ c milk, ½ apple	14	28	2 oz meat loaf, ½ c potato, 1 slice bread, 1 c milk, ½ apple
	TOTAL	42	84	

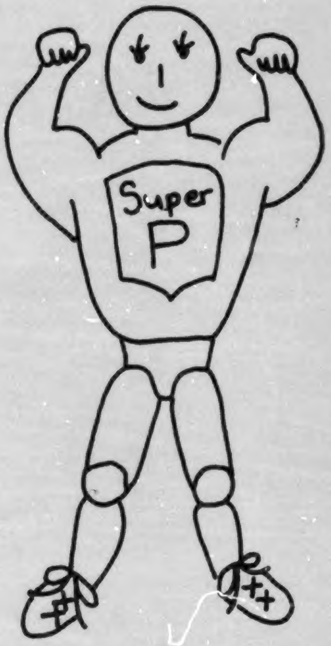
With the great availability of animal food and nutritious grains, beans, and vegetables, most of us have little trouble meeting or exceeding the protein requirements. So redirect your diet away from protein to variety. And don't forget:

Protein is essential stuff
But as you know, enough is enough!

Protein Myths

Do athletes need more protein to build muscle?

No. Although athletes have more muscles and exercise more muscles (and muscles are made of protein), they do not need additional protein for better performance or to aid in muscle building. People engaged in hard physical labor use up only slightly more protein than someone who is inactive. Athletes are able to perform just as well for weeks or months on 50 grams of protein per day as on 75, 100, or 150. Two quarter-pound hamburgers can supply 50 grams of protein. To add muscle,one needs additional calories from a variety of foods plus intensive exercise. Protein supplements do not add extra muscle tissue.



Are high protein diets good for weight loss?

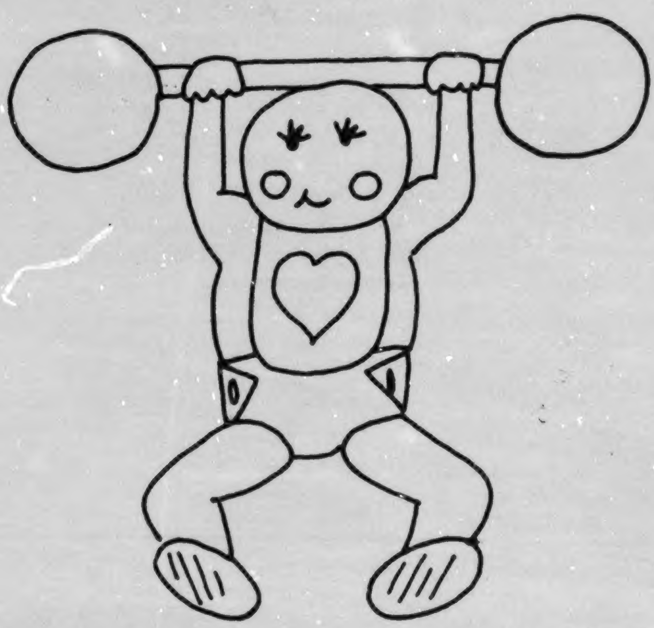
No. There are a number of misconceptions about high-protein weight-loss diets. The first is that the body doesn't store protein so it is okay to eat as much as one likes. The truth is that the body doesn't store **nitrogen** from protein, but it converts the excess protein into fat.

The second misconception is that it takes more calories to digest protein than other nutrients. A person won't lose more weight by digesting protein because it takes the same amount of energy to digest **all** the nutrients. There is no energy-utilizing advantage to eating protein.

The third is that protein is less fattening than carbohydrates, so one should eliminate the carbohydrates to lose weight. Protein and carbohydrates contain equal amounts of calories; it is the fat in protein sources that is fattening. Every ounce of meat provides 1½ times more calories from fat than from protein. So a high-protein diet is usually also a high-fat diet.

Do children who eat lots of protein grow more?

No. CHILDREN NEED AN ADEQUATE AMOUNT OF PROTEIN TO GROW, but more is not better. Excessive protein intake in children can be harmful. Getting rid of excess protein puts a strain on the kidneys and liver. More than 7 times as much water is needed to process protein into energy or body building units than the same amount of either carbohydrates or fat. Because so much water is needed to carry away the protein wastes in the body, children and especially infants may lose too much water through urination if they are given excessive amounts of protein.



Fat — A Lot There To Talk About

Fats, like carbohydrates, are energy nutrients. It is efficient for the body to store excess calories (or energy) in the form of fat because fat can hold over twice the calories as the same weight in protein or carbohydrates. This is why animals accumulate a layer of fat in the fall; they are filling their "energy bank" before winter sets in.

Fat is an important nutrient in our diet. It adds flavor to foods and carries fat-soluble vitamins A, D, E, and K. There is fat in breast milk and fat is added to infant formula. Infants and children who don't get this fat don't grow well, show signs of bone loss, and have frequent skin infections.

Fat surrounds and pads all vital organs, protecting them from blows and temperature changes. This padding helps you ride a horse or bicycle for many hours with no more serious damage than sore muscles.

A small amount of fat in the meal is important to provide that "full" feeling. Fat slows down digestion by keeping food in the stomach longer. So even during dieting, a little fat is a good idea because it "finishes" the meal.

FOODS WITH FAT

Plants

- **oils (corn, safflower, peanuts, olive, etc.)**
- **nuts**
- **grains**
- **legumes (dry peas and beans)**

Animals

- **meat**
- **chicken**
- **fish**
- **egg yolks**
- **dairy products**

The Many Forms of Fat

Polyunsaturated, saturated, hydrogenated — why is fat so complicated? Maybe we should just call it grease and leave it at that!

Fat can be found in many forms: as fat from meat or lard, as butter, shortening, margarine, and vegetable oils. Fat can either be solid, liquid, or in-between. If it is solid — such as the whitish fat in a steak or bacon, or the yellowish fat in chicken or butterfat — it is "saturated fat". If it is liquid, such as corn oil, it is "polyunsaturated fat". If it is in-between, such as margarine, it is partially saturated or "hydrogenated fat".

Polyunsaturated → Hydrogenated → Saturated

Most Vegetable Oils
Olive Oil
Margarine (Vegetable Oils)
Coconut Oil
Palm Oil
Shortening (Vegetable Oils)
Butter
Lard

LIQUID → SOLID

Are there differences in the way these fats are used by our bodies? Are some fats "healthier" than others? Yes. The **form** in which we consume fat plays a role in our health, as well as the **amount** of fat we eat.

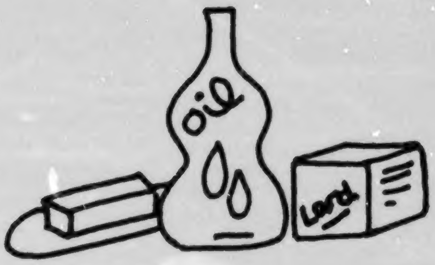
Saturated Fat

Saturated fats are the "bad guys". When eaten in large amounts, they have a tendency to raise blood cholesterol levels, thus increasing the risk of heart disease. Besides being in animal products, there are some saturated fats from vegetable sources. There are coconut and palm oils, cocoa butter, hydrogenated oils, and shortening. Use the following list as your guideline in choosing low saturated fat foods in place of high saturated fat foods.

Low Saturated Fat Foods	Medium Saturated Fat Foods	High Saturated Fat Foods
Cottage Cheese	Ham	Cold Cuts
Shellfish	Round Steak	Lamb Shoulder
Fish (Cod, Halibut, Salmon, Tuna, etc.)	Whole Milk	Sour Cream
Turkey	Pork Loin	Beef Chuck
Chicken	Leg of Lamb	T-Bone Steak
Low-Fat Milk	Margarine	Bacon
		Cheddar/Full-Fat Cheeses
		Butter

Polyunsaturated

Polyunsaturated fats are the ones you frequently hear advertised on T.V. They are somewhat misrepresented since the advertising leads us to believe that lots of polyunsaturated fats will **keep** us from getting heart disease. It is true that when they are eaten in moderate amounts, polyunsaturated fats tend to lower our cholesterol levels. But, just as with protein, more is not better. In comparison with saturated fats, polyunsaturates provide more health benefits when eaten sparingly.



Polyunsaturated oils deteriorate quickly, so they should be refrigerated and not stored for long periods. They also react unfavorably at high temperatures; therefore, it is best not to heat oils to the "smoking point" or to reuse the oil once it has been over heated.

Hydrogenated Oils

In 1869, when butter was in short supply in France, a prize was offered to whomever could come up with an attractive substitute. M. Hippolyte Mege took first place by flavoring lard with a yogurt-like milk preparation and coloring it with a natural yellow color to resemble good French butter. Of course, no one was fooled, but the price was right. This was the first "cheaper spread", or margarine.

During World War II, when butter was again scarce, margarine got another boost. It became a weekly routine for the housewife to purchase a lard-like white block of margarine, a small packet of yellow dye, and mix the family's supply of margarine.

Today margarine is made almost exclusively from polyunsaturated vegetable oils which change into saturated fat in the processing. By consuming these fats in a saturated form, we lose the original nutrient benefits from the vegetable oils. The best types of margarine are those that have the least amount of processing and contain the lowest amount of saturated fat. Products that have "**liquid** safflower oil" or corn oil, etc., as the first ingredient are the least hydrogenated margarine products.

Shortening is another example of a hydrogenated oil. Some shortenings may contain a blend of both vegetable oils and animal fats. A shortening made especially for frying is bland, leaves no flavor of its own, and should resist rancidity and have a long frying life. But be careful with shortenings as with vegetable oils that you not reuse the fat once it has reached its "smoking point".

NON—DAIRY CREAMER

Contains hydrogenated vegetable fat. What they don't say is that hydrogenated vegetable oil is saturated fat, just like in real cream.

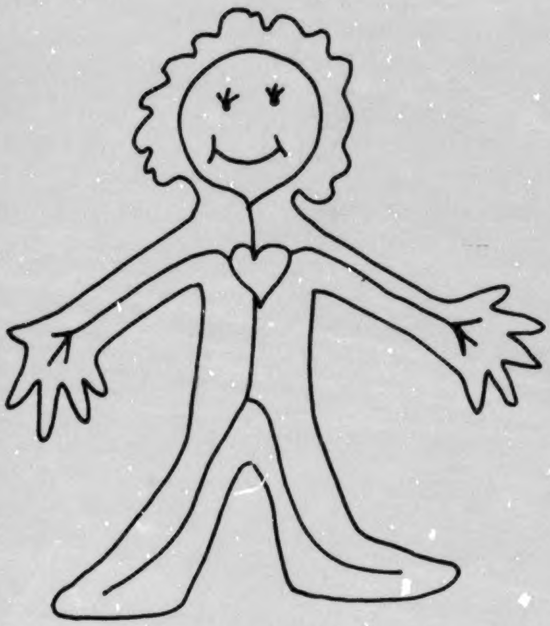
Ingredients: corn syrup solids, hydrogenated vegetable oils (palm kernel, coconut oil), etc.

* * *

FIND—THE—FAT

The number of calories in foods is usually a giveaway as to fat content. Which foods below do you think contain fat? Compare baked potato and potato chips, cabbage and coleslaw, skim milk and whole milk.

FOOD		CALORIES	FOOD		CALORIES
Celery	1 stalk	5	Non-fat milk	1 cup	90
Cabbage	½ cup	15	Peanut butter	1 tbsp.	95
Carrot	1	20	Butter	1 tbsp.	100
Tomato	1	40	Potato chips	10 chips	115
Green peas	½ cup	60	Whole milk	1 cup	160
Apple	1	70	Chocolate bar	1	240
Bread	1 slice	70	Ice cream	1 cup	255
Cole slaw	½ cup	85	Hamburger on bun	1	350
Baked potato	1	90	Roasted peanuts	½ cup	420



Keep The Life Lines Open

Cholesterol is a fat-like substance that plays an important role in the body. It is found in hormones, bile acids, brain cells, and nerve cells. But what most of us hear about cholesterol are the bad things. Cholesterol tends to stick to our artery walls and hinder the circulation of blood. So when cholesterol is not on the job performing its healthful functions in the body, it is not a good thing to have "hanging around".

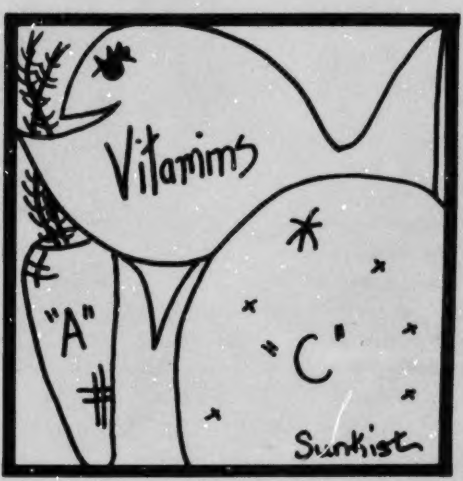
Since the body makes cholesterol on its own, how can we control how much is "hanging around"? First of all, the amount of cholesterol we have in our blood stream is somewhat influenced by the amount of cholesterol we eat. So it is a good idea to limit high cholesterol foods in the diet. Foods that have plant fiber or vegetable protein, such as fresh vegetables, whole grain foods, and beans, actually work to **decrease** cholesterol levels.

Secondly, exercise is important because it allows you to handle cholesterol better. People who exercise regularly have more efficient cholesterol "carriers" that take cholesterol out of the blood stream. Exercise and diet work hand-in-hand to keep us healthy.

CHOLESTEROL IN FOODS

FOODS	PORTION	AVERAGE MG. CHOLESTEROL
beef brains	1 ounce	570
egg	1	250
liver, cooked	1 ounce	125
shrimp, cooked	1 ounce	40
milk, whole	1 cup	30
cheese, cheddar or jack	1 ounce	30
crab, lobster, cooked	1 ounce	25
beef, pork, lamb, cooked	1 ounce	25
poultry, cooked	1 ounce	25
fish, cooked	1 ounce	20
clams, oyster, cooked	1 ounce	20
butter	1 teaspoon	10
mayonnaise	1 teaspoon	5
non-fat yogurt	1 ounce	2
margarine, vegetable oil	1 ounce	2
legumes, cooked	1 cup	0
peanuts, peanut butter	1 handful	0
rice, oats, pasta, cooked	1 cup	0
fruit	1 cup	0
vegetable	1 cup	0

Vitamins — A Little Goes A Long Way



Vitamins are different from the nutrients we've talked about thus far because they neither provide energy nor make up any part of the body. Vitamins are like the fuse to a firecracker. They trigger chemical reactions in the body so that all the other nutrients can do their jobs. Every act you do, from sneezing to running, involves the help of vitamins.

Carbohydrates, proteins, and fats are consumed in large amounts each day; whereas, vitamins are needed in extremely small amounts. To illustrate how little is needed of a vitamin, let's start with an ounce of vitamin, which is 2 tablespoons. The recommended daily allowance of vitamin B_{12} is 6 micrograms a day, meaning that one ounce of B_{12} would be enough for 4,724,921 people!

The B vitamins and vitamin C are called water soluble vitamins because they easily merge throughout the waterways of our body. Rather than being stored, they travel around freely and excesses are lost in the urine. Vitamins A, D, E, and K are called fat soluble vitamins because they need a fat carrier to circulate them throughout the body. Rather than being free travelers, they settle down into their storage places until needed. If the storage places are full of any of these vitamins, excesses can cause problems since they aren't excreted.

Each vitamin plays a special role. Therefore, it is not a good idea to overemphasize any one vitamin in the diet. Variety and balance are just as important with vitamins as with any other nutrient.

Vitamin A — The Eyes Have It

How do you know that carrots are good for your eyes? Because rabbits eat carrots, and they don't wear glasses.

Besides this fact, there is some additional evidence that vitamin A - containing foods, such as carrots, are good for vision—particularly night vision. Vitamin A is found in the eye where it helps light impulse get to the brain. This is how we see. Vitamin A also keeps skin and inner body linings healthy and remodels growing bones.

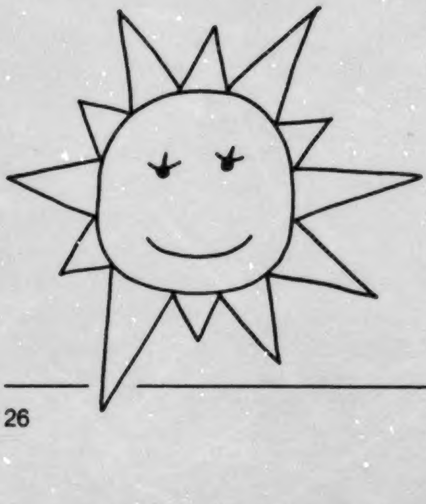
In the body, vitamin A is stored in the liver. That's why animal or fish liver is such a rich source of vitamin A. Arctic hunters have found this out the hard way. Polar bears, because they eat fish whole (and this includes fish livers), store very large amounts

FOOD STARS FOR VITAMIN A

- ★ **liver**
- ★ **carrots**
- ★ **butternut squash**
- ★ **sweet potato**
- ★ **cantaloupe**
- ★ **turnip or mustard greens**
- ★ **broccoli**
- ★ **egg**
- ★ **milk**

FOODS STARS FOR THE B-VITAMINS

- ★ **dried peas and beans**
- ★ **wheat germ**
- ★ **pork**
- ★ **fish**
- ★ **beef**
- ★ **cottage cheese**
- ★ **spinach**
- ★ **brown rice**
- ★ **peanut butter**



of the vitamin in their livers. Arctic hunters who have eaten polar bear liver have become dangerously ill and even died as the result of too much vitamin A. The next time you serve polar bear liver, do so in **very small amounts!**

Vitamin A is found in plant foods in the form of carotene. There is a general rule of thumb in identifying the vitamin A content of plants: the darker, the better. **Dark green** leafy vegetables, such as spinach, chard, kale, and turnip greens, and **dark orange** vegetables or fruits, such as sweet potatoes, carrots, or cantaloupe, are some of your best plant sources of vitamin A.

Carotene gives orange plants their orange color. People who drink excessive amounts of carrot juice get a reminder that they've had too much vitamin A when their skin turns orange from the orange carotene pigment.

B-Vitamins Do It In Groups

The B-vitamins are a nutrient group that act as enzyme helpers to release energy from food. Without them, the energy stored in protein, carbohydrate, and fat would be useless to us. Niacin, thiamin, and riboflavin are the three B-vitamins added back to refined flour for "enrichment". Riboflavin is also found in milk products.

Vitamin B_{12} helps the body manufacture blood. It is present only in animal products. That's why people who are strict vegetarians must supplement the diet with B_{12} tablets or other foods that have B_{12} added, such as nutritional yeast.

The B-vitamins work closely together, and single vitamin deficiencies usually don't occur. With the exception of B_{12}, it is not a good idea to take single B-vitamins in tablet form. Whole grain foods and meats provide a nice assortment of the whole vitamin B gang.

Did You Eat Your Sunshine Today?

Plants are not the only ones who "eat" sunshine. We do too, in the form of vitamin D. There is an inactive form of vitamin D on the surface of the skin. It is activated by sunlight and then absorbed into the cells where it is used in the same way as vitamin D from foods. So in a sense, we can "eat" sunlight.

Vitamin D is the vitamin that puts calcium to work. Without it, calcium does not do its job of building strong bones and teeth, clotting blood, and aiding in muscle contraction.

Since Vitamin D is fat soluble, it is stored in the body and becomes toxic in large amounts. The more skin is exposed to sunlight, the darker it becomes, and the less vitamin D is activated. Dark-skinned people who live in sun-intense areas of the world transform less vitamin D. Their dark skin keeps them from getting toxic amounts. On the other hand, black children in northern U.S. cities must be particularly careful to get enough sunlight, since their skin color filters the sun from activating vitamin D.

People in tropical areas seem to need less dietary calcium than we do in the U.S. This was a puzzle to scientists until they discovered that the extra vitamin D from the sun was increasing their use of calcium, so they didn't need as much. It is important not to underestimate our sunshine diet.

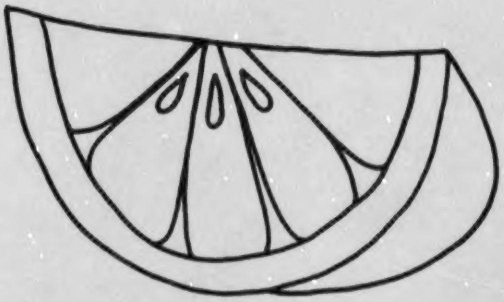
Sunshine is not the only source of vitamin D in the diet. Some foods are rich in vitamin D, such as butter and egg yolks. Milk is fortified with vitamin D so that it can work hand-in-hand with the calcium that is naturally found in milk. So for a double whammy of vitamin D, drink a glass of milk in the backyard on a warm, sunny day. You'll be nourished both inside and out!

FOOD STARS FOR VITAMIN D

- ★ **fortified milk**
- ★ **egg yolk**
- ★ **butter**
- ★ **buttermilk**
- ★ **sunshine**

The Story of Vitamin C

We've only known about vitamins for 80 years. But for centuries people have suffered from vitamin deficiencies, particularly from scurvy or the lack of vitamin C. Looking back through history, some very curious events happened that were finally pieced together in the 1920's.



- Scurvy was a disease that was common among sailors on long sea voyages. Their muscles ached, gums rotted, flesh bruised easily, and bones became brittle. Many died. Vasco de Gama, for example, lost 100 out of 160 men when he sailed the Cape of Good Hope in 1498. But ship crews that ate potatoes, cabbage, and citrus fruits, such as limes, didn't get sick from scurvy.

- In 1536, Jacques Cartier, an explorer in New Foundland, was gravely concerned when most of his crew became ill with scurvy. The local Indians gave them an extract from a white cedar tree which promptly cured the survivors.

- Thousands of the Forty-Niners, during the California Gold Rush of the 1840's, died from the same symptoms. Some escaped this fate by eating a wild salad plant called "miner's lettuce" (winter purslane).

- Loggers in the backwoods of Maine, to prevent scurvy, learned to eat live black ants that had eaten pine needles.

- During the long hard winters in Greenland, people drank beer that was flavored with spruce needles. They also brewed concoctions of saps, cones, and green bark.

What citrus fruit, potatoes, cabbage, miner's lettuce, white cedar, spruce, and pine needles all have in common is vitamin C. And scientists discovered in the 1920's that vitamin C prevented people from getting the dread disease of scurvy. All mammals except guinea pigs, fruit bats, and people, can make their own vitamin C. We must rely on vitamin C foods daily to stay healthy.

Many people have heard that vitamin C can cure a cold. Whether or not this theory is true is not known. It is known that vitamin C helps fight infections and is used up faster during illness or stress. But it isn't necessary to take vitamin C tablets to keep us healthy during those cold winter months. There is a limit to the amount of vitamin C the body can absorb at one time. And vitamin C in large doses may be harmful to the kidneys. Foods seem to provide just the right amount for absorption. If you feel a cold coming on, eat an orange or some cabbage soup.

Saving the Vitamins

Since it is a healthy course of action to depend on foods, not pills, to supply our daily vitamins, it is important to salvage all the nutrients we can from storing and cooking.

Here are some ways to decrease vitamin losses:

- To retain more vitamin C, chill fruit immediately after picking or buying and keep cold until served.
- Vitamin C is destroyed by oxygen. Do not cut fruit or vegetables until you are ready to use them. If the skin is uncut, the vitamin is protected from air. Cut produce should be stored tightly in a wrapper that excludes air.
- Use a steamer to cook vegetables. Add vegetables to the pot after the water is boiling. Cover pan and cook as short a time as possible. Serve quickly.
- Don't discard cooking water. It is vitamin-rich. Use it for soups, in casseroles and gravies, to boil rice, etc.
- Don't add baking soda to vegetables to make them greener; the alkalinity destroys the B vitamins.
- Keep milk away from light. In a clear, glass container, 50% of the riboflavin in milk is destroyed in 2 hours.

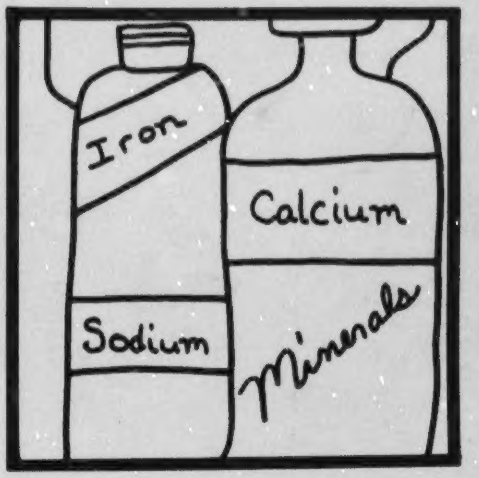
FOODS STARS FOR VITAMIN C

★ broccoli
★ oranges
★ red and green pepper
★ cabbage
★ cantaloupe
★ brussel sprouts
★ potato
★ tomato
★ grapefruit

Mining Our Foods for Minerals

Minerals are nutrients that are present in small amounts in the body and make up about 3% of our total body weight. That means that a 150-pound person contains about 5 pounds of minerals. Most of this is calcium or phosphorus which make up our bones and teeth. The rest are present in much smaller amounts. For example, the iron in our bodies would not even fill a teaspoon.

Minerals do many different jobs. Besides building bones and teeth, they help control heartbeat and blood clotting (calcium, magnesium, and potassium), build red blood cells (iron, copper), regulate energy flow (iodine), and promote growth and healing (zinc).



"Tired, Rundown . . . ?"

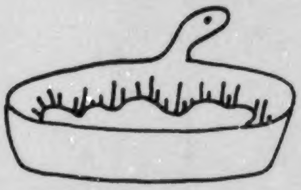
The old TV commercials about "iron-poor blood" hit a familiar chord with a surprisingly large number of people. They were fairly accurate in representing women of childbearing age as being low in iron. Health surveys have shown that many menstruating and pregnant women, infants, and teenagers have low iron status.

For the general population, iron intake can be increased adequately by eating iron-rich foods. Iron pills should not be taken routinely without a doctor's consent because the body stores excess iron and a build-up could be toxic. Here are some suggestions to assure that both you and your children are getting enough iron in the diet:

- Eat iron-rich foods daily.
- Feed iron-fortified formula and iron-fortified cereals to infants.
- Use cast-iron skillets in cooking. The iron that is leached from the skillet is just as useful as the iron directly from foods.
- Eat vitamin C-containing foods at each meal. Vitamin C more than doubles the amount of iron that is absorbed by the body.

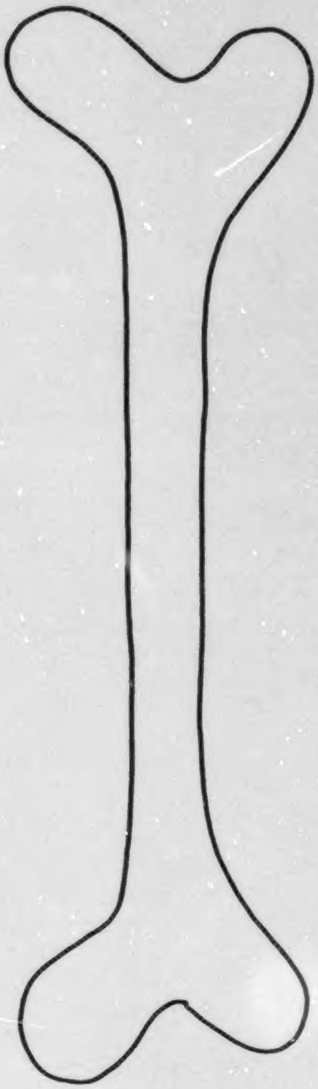
IRON—RICH FOODS

	Serving Size	Iron (mg.)
40% Bran flakes	¾ cup	10
Raisin Bran	⅔ cup	8
Beef kidney	2 oz.	7.8
Beef liver	2 oz.	5.2
Clams	¼ cup	4.2
Blackstrap molasses	1 tbsp.	3.2
Ground beef	3 oz.	2.7
Prune juice	¼ cup	2.6
Dried beans	½ cup	2.6
Spinach, greens	½ cup	2.4
Watermelon	1 wedge	2.1
Dried lentils	½ cup	2.2



As an example of how the use of cast iron increases your iron intake:

100 grams of spaghetti sauce simmered in a glass dish has 3 mg. of iron; the same sauce from a cast-iron skillet has 87 mg. of iron.



Down to the Bare Bones

Growing children need calcium because they are in the process of forming new bones and teeth. Pregnant women and nursing mothers also require a large amount of calcium because they are sharing their calcium with their babies. Even after growth stops, people need a constant supply of calcium because the calcium in bones and teeth is constantly being replaced.

Milk and milk products are some of the richest sources of calcium in the American diet, and vitamin D helps calcium to be absorbed. So this makes milk an excellent food to be fortified with vitamin D. When dairy products are not part of the regular diet, there are other food sources of calcium available. Each of the following foods provides the same amount of calcium as 1 cup of milk:

1	cup broccoli or collard greens
1	cup almonds
1¼	cup turnip greens
1½	cup kale, mustard greens
1⅔	cup sunflower seeds
1	cup soy milk
2	cups beet greens
2	cups quick-cooking enriched farina
2½	tablespoons blackstrap molasses
3	cups cooked dried beans
3	pieces enriched corn bread

There are other ways to increase calcium intake. Calcium is leached out of meat bones when they are boiled in soups or stews. So don't throw out those old ham bones. Cook them with beans or in split pea soup. It is also possible to utilize the calcium from small fish bones, found in sardines, salmon, and mackerel.

Water, Water, Everywhere

If you call someone a "real drip", you are accurately describing the human being. About ⅔ of our body weight is water, and this water is constantly being lost and replaced. We lose half of our body's water in 10 days.

Water Does More Than You Think

Water is the body's transportation system. The blood stream is like a river running through the arteries, capillaries, and veins, carrying nutrients and waste products. In fact, that's how blood carries the calcium in milk to the bones in our toes.

Water is the buffer and shock absorber between cells. It protects sensitive tissue, such as the spinal cord, from shock. The unborn child is cushioned against blows by the bag of water in which it develops.

One of water's special features is its heat-holding capacity. Water helps to maintain our body temperature at a constant 98.6°F by resisting changes in temperature. This is partially accomplished by sweating. Sweat glands bring water to the skin surface; and when it evaporates, it takes body heat with it.

How Much Water Do We Need?

Our need for water is more important than any other nutrient. We can survive for weeks without food, but we will only live for a few days without water. In fact, we need hugh amounts—2 to 3 quarts a day—to replace the water we lose through the skin, breath, urine, and feces.

Dieters sometimes think that drinking too much water will add "water weight". This is not the case. Excess water is excreted immediately.

You don't have to actually **drink** that much water. Much of it comes through the foods you eat. Under ordinary conditions, the normal adult gets enough water from food plus 5-6 glasses of liquid each day. A hot climate or vigorous activity boosts the need for water.

It is important that infants get an adequate amount of water. Because the infant communicates his needs by crying, remember that he/she may be crying for fluid rather than food.

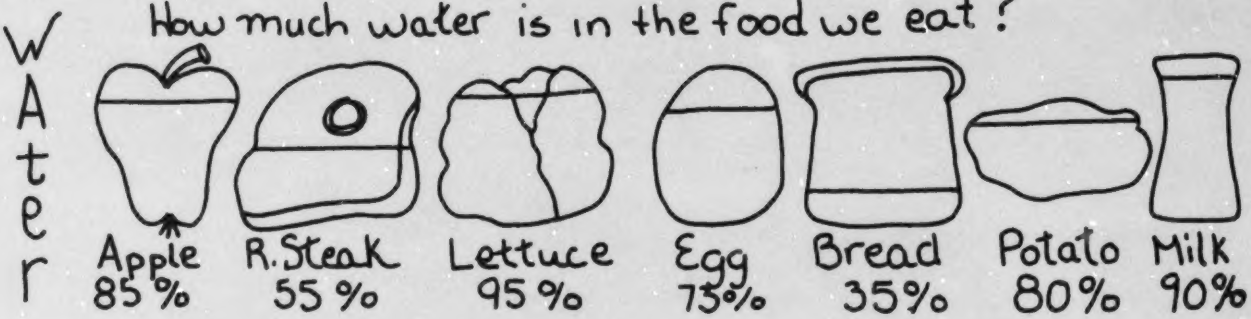
Pregnant women need additional water to prevent constipation, and breastfeeding moms need additional water to supply the fluid for breast milk. Fluid intake for athletes is essential for continued performance since water loss reduces muscular work capacity and could lead to collapse.

Water Sources in the Diet

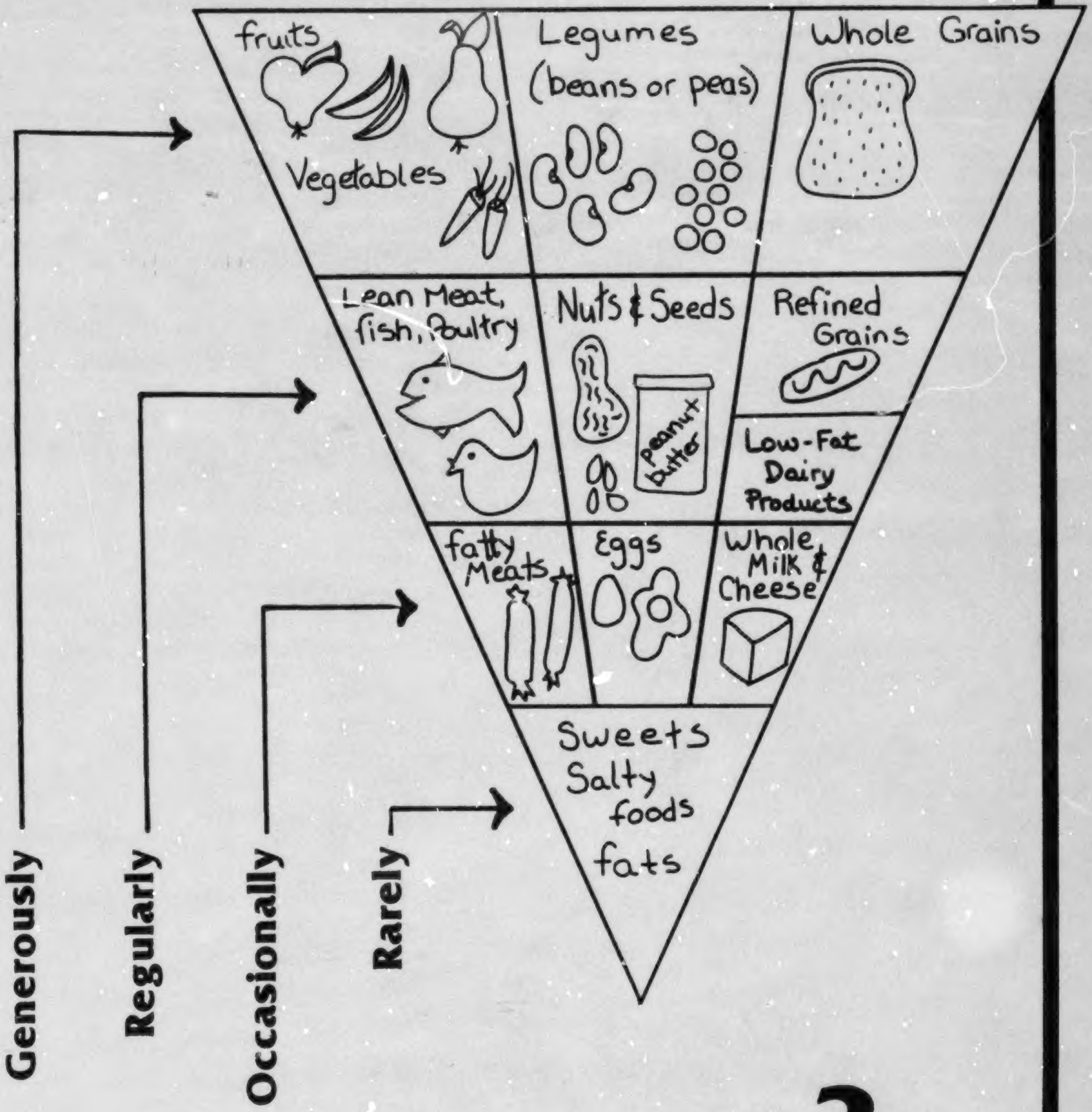
Water is part of almost all the foods we eat. Juices and milk are at least 90% water. Fruits and vegetables are generally at least 80% water. We also get water from eating meat, eggs, and bread. Even a dry cracker is 5% water.

The amount and kinds of minerals we get in our water is important nutritionally. Distilled water is not recommended because it lacks all minerals. Although impurities have been removed, so have the trace elements that are hard to get from other food sources. Hard water, which contains calcium as its major mineral, is better to drink than soft water, which contains large amounts of sodium. So people with water softeners are making a trade-off—more suds and sodium for less calcium in the diet.

Water is frequently the forgotten nutrient,although it is the most important one in our diet. On those hot days when the kids are playing in the yard, bring out a big pitcher of water, some paper cups, and you'll be surprised how much they'll drink. Nothing does the trick like a big glass of cold water!



Eat These Foods . . .


fruits
Vegetables
Legumes (beans or peas)
Whole Grains
Lean Meat, fish, Poultry
Nuts & Seeds
peanut butter
Refined Grains
Low-Fat Dairy Products
fatty Meats
Eggs
Whole Milk & Cheese
Sweets
Salty foods
fats
Generously
Regularly
Occasionally
Rarely

Chapter 3

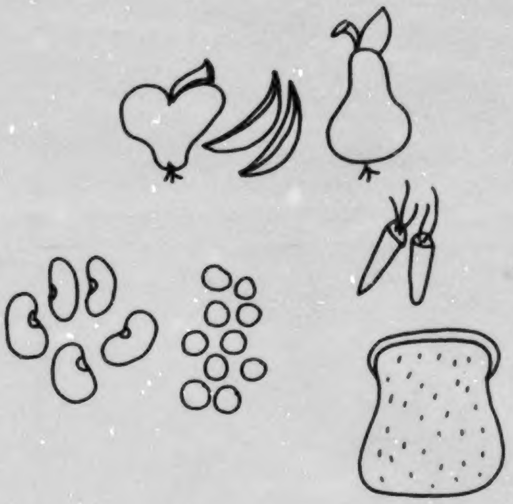
Foods For Balance—Foods For Moderation

"Chews" Foods Wisely

In the "real" world, we deal with foods, not nutrients. We don't go to the grocery store to buy 50 grams of protein, 400 milligrams of calcium, or 1800 milligrams of vitamin C. So for nutrient information to be of any value, it must be translated into foods. We need to know **what** foods to eat, **how much,** and **in what pattern.**

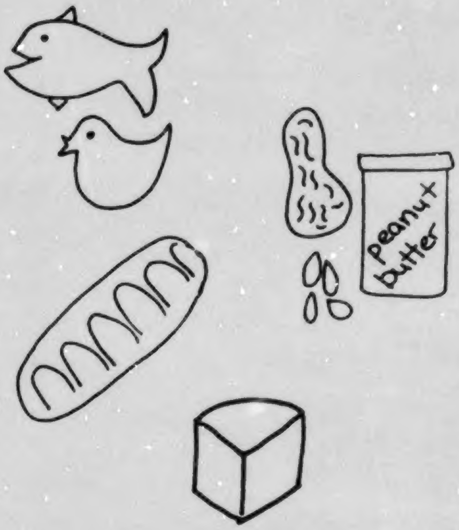
Nutritional Guidelines

It isn't just TV shows that have good and bad ratings. Foods do too. Some foods are better for us to eat than others. The following Guideline For a Healthly Food Pattern divides foods into categories ranging from "Eat Generously" to "Eat Rarely". So here is the answer to the common question, "What's to eat?"



Foods to Eat in Generous Amounts

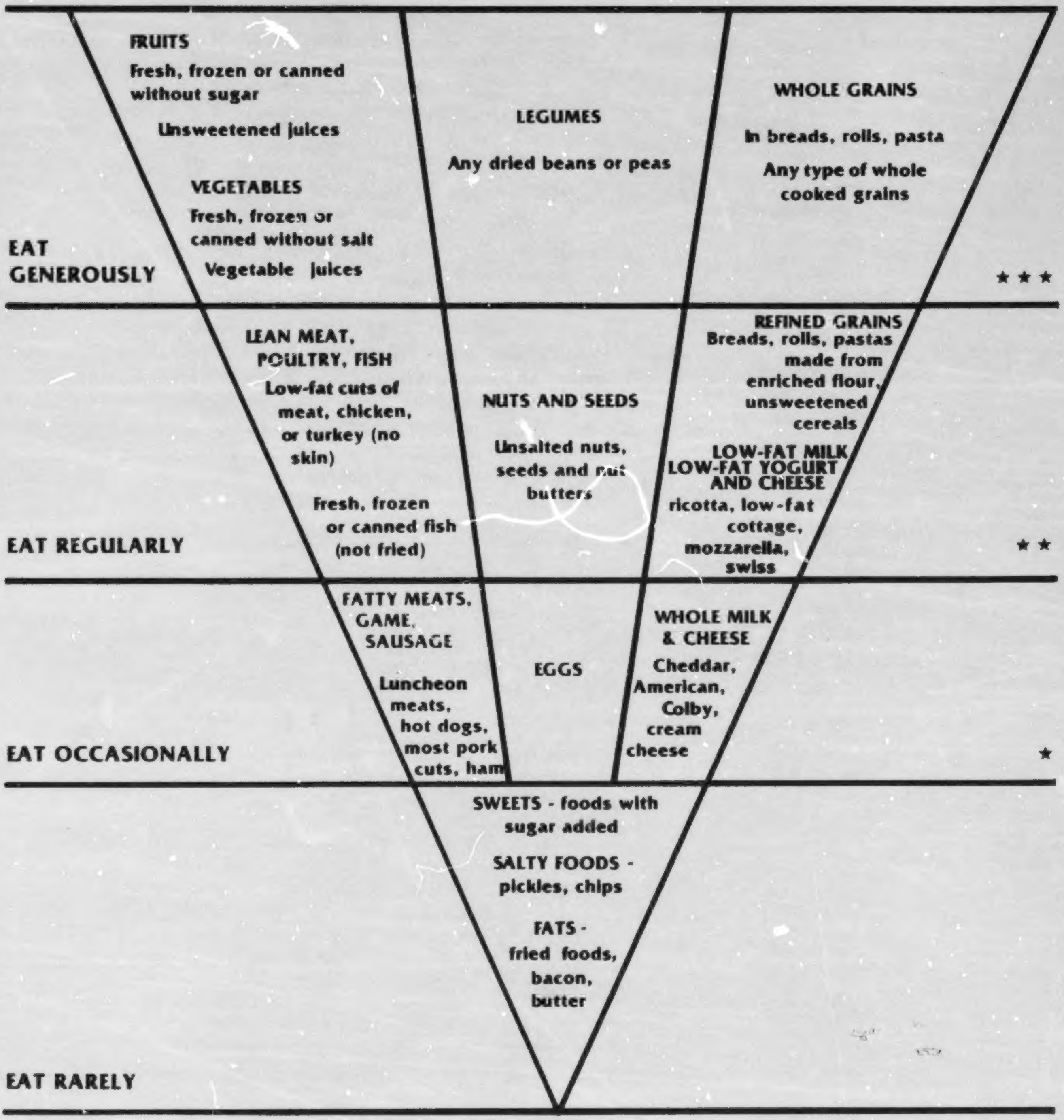
- Fruits and Vegetables—Choose fruits and vegetables that are fresh, frozen, or canned, preferably without sugar or salt. Fruit or fruit beverages made from 100% real fruit juice taste better than fruit drinks sweetened with sugar. And you'll find that fruit or vegetable juices beat a soft drink any day!
- Legumes—Dried beans and peas are economical as well as nutritious - a combination hard to find. Since they are a good source of protein and low in fat, they rank up at the top.
- Whole Grains—Any types of whole cooked grains, or whole grain breads, rolls, or pastas are a good choice. You'll be amazed at the varieties of grains on the market.

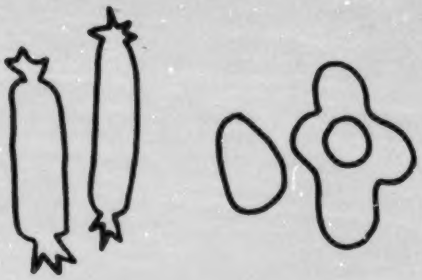


Foods to Eat Regularly

- Lean Meat, Poultry, and Fish—**Low-fat** meats have nutrient "benefits" (protein, vitamins, and minerals) but at the same time are low in fat.
- Nuts and Seeds—**Unsalted** nuts and seeds and nut butters complement beans in taste and nutrients. EXCEPTION: Whole nuts and seeds are not good for children under age 3 because of the possibility of choking.
- Refined Grains—Although not as good as whole grains, products from enriched flour are sources of energy and some vitamins.
- Low-fat Milk, Low-fat Yogurt and Cheese—Dairy products round out the daily meal pattern. Choose low-fat foods—your heart will love you for it! EXCEPTION: Feed whole milk to children under age 2. They need the extra calories contained in whole milk, and the fat helps the young children absorb the vitamins D and A.

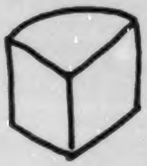
GUIDELINES FOR A HEALTHY FOOD PATTERN


FRUITS
Fresh, frozen or canned without sugar
Unsweetened juices
VEGETABLES
Fresh, frozen or canned without salt
Vegetable juices
LEGUMES
Any dried beans or peas
WHOLE GRAINS
In breads, rolls, pasta
Any type of whole cooked grains
EAT GENEROUSLY
★ ★ ★
LEAN MEAT, POULTRY, FISH
Low-fat cuts of meat, chicken, or turkey (no skin)
Fresh, frozen or canned fish (not fried)
NUTS AND SEEDS
Unsalted nuts, seeds and nut butters
REFINED GRAINS
Breads, rolls, pastas made from enriched flour, unsweetened cereals
LOW-FAT MILK
LOW-FAT YOGURT AND CHEESE
ricotta, low-fat cottage, mozzarella, swiss
EAT REGULARLY
★ ★
FATTY MEATS, GAME, SAUSAGE
Luncheon meats, hot dogs, most pork cuts, ham
EGGS
WHOLE MILK & CHEESE
Cheddar, American, Colby, cream cheese
EAT OCCASIONALLY
★
SWEETS - foods with sugar added
SALTY FOODS - pickles, chips
FATS - fried foods, bacon, butter
EAT RARELY



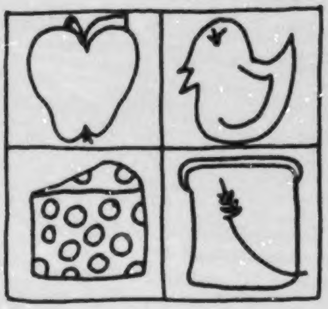
Foods to Eat Occasionally

- Fatty Meats, Game, and Sausage—The higher amounts of fat in these foods cause us to take heed. They're nice on occasion but not as part of the daily fare.
- Eggs—Because of the cholesterol content, limit eggs to an occasional special breakfast, approximately 2–3 times a week. EXCEPTION: Since eggs are such a good source of protein and iron, be a little more lenient with the number of eggs you serve to children.
- Whole Milk and High-fat Cheese—It's that darn fat again!



Foods to Eat Rarely

- Sweets - Limit your intake of all those foods we so dearly love - soft drinks, candies, cakes, etc. Once you've kicked the sugar habit, you'll feel like a new person.
- Salty foods - Because of the role salt seems to play in hypertension and heart disease, it is wise to cut back on salty foods, such as, salted nuts, potato chips, hard pretzels, and snack crackers.
- Fats—Fats from fried foods, bacon, butter, and oils add many calories with only a few nutrients. Choose foods that have a better nutrient/calorie ratio than fatty foods.



A Food Pattern—Simple Enough for a Child to Follow

Let's apply these nutritional guidelines to a daily food pattern. In **general**, we should be eating:

> Fruits and Vegetables—4 times a day; Breads, Grains, and Cereals—4 times a day; Milk—2 to 3 times a day; Meat/Meat Alternates—2 times a day.

Eating according to this pattern will provide approximately all of the nutrients you will need for one day. Of course, the serving sizes change from children to adults. A child will eat a smaller serving of a fruit or vegetable than an adult. The recommended serving sizes are:

	Milk	**Meat/Meat Alt.**	**Fruit/Vegetables**	**Breads/Grains**
1 - 3 years	½ cup	1 ounce	¼ cup	½ slice ¼ cup
3 - 6 years	¾ cup	1½ ounce	½ cup	½ slice ⅓ cup
6 - 12 years	1 cup	2 ounces	¾ cup	1 slice ½ cup
adolescents/adults	1 cup	3 ounces	¾ cup	1 slice ½ cup

The United States Department of Agriculture has set up a food pattern for the children who participate in the Child Care Food Program that accommodates these Nutritional Guidelines. (See Chapter 1 for the USDA Minimum Nutritional Requirements.) If you feed your children according to the USDA Food Pattern and keep the Nutritional Guidelines in mind, you can rest easy and know that they are getting the nutrients they need.

Practicing What We Preach

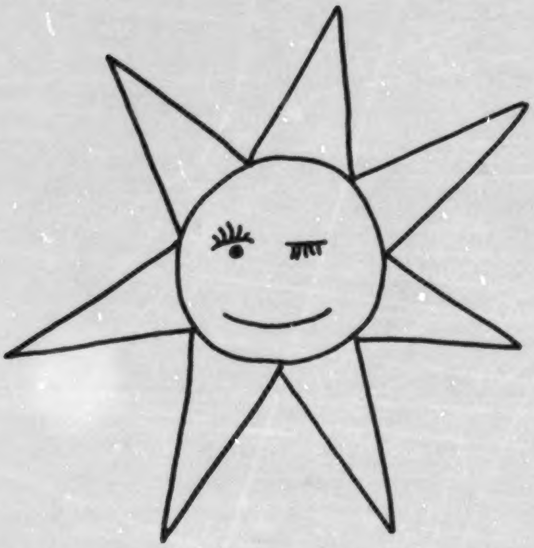
You will continue to see references to the Guideline For a Healthy Food Pattern throughout the rest of the chapter. Use this guide in making decisions on what foods are good to eat, how often to eat them, and how to plan meals so they are nutritionally complete.

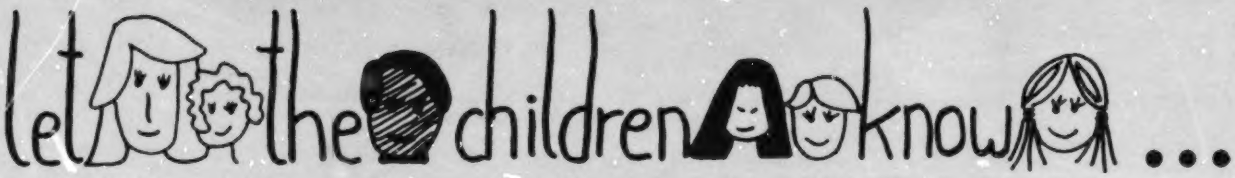
FOOD CHOICES

1) Look at your daily eating patterns by making a list of everything you eat and serve your children for 2 days.

2) Follow the Guideline for a Healthy Food Pattern for one week.

3) What changes did you make in your food choices?





let the children know ...

- **that there are many different kinds of foods to eat.**
- **that foods can be placed in groups: 1) breads and grains, 2) fruits and vegetables, 3) milk, and 4) meat and meat alternates.**

What Do You Like to Eat?

Talk with the children about the many different kinds of foods that they can eat. Allow them to express their food preferences by saying what foods they like. Point out that not everyone named the same food. There are many different foods that they can eat and like.

Train to Good Health

Make a train to represent the four food groups. You can do this with five milk cartons and construction paper. Cut one side from each of the milk cartons so it is an open box. Cover one red (meat group), green (fruits and vegetables), blue (dairy products), and yellow (breads and cereals). Cover the fifth carton black for the engine. Punch a hole in each of the cars with scissors, run a small piece of yarn between the cars, and knot securely. You can also use shoe boxes instead of milk cartons.

Paste pictures of foods on cards or heavy paper. Have the children sort them according to food groups. When the railroad cars are full, take a ride on the Train to Good Health!

Make-A-Meal

Cut and paste pictures of food on paper plates to make a meal. Help the children to include something from each food group on the plate.

Let's Go Fishing

Children can cut out fish shapes from construction paper and paste a food picture on each fish. Attach a paper clip to the nose of each fish and put the fish in a bucket. Make a "fishing pole" with a magnet tied to the end of the string. Each child takes a turn to "go fishing". The magnet will attach itself to a paper clip, and the child can withdraw the fish with the pole. If the child can identify the food picture on the fish, he gets to keep the fish. The child who has the most fish wins the game.

Share Soup

Take a trip to the supermarket or place a variety of vegetables on the kitchen table. Have each child select a vegetable to go into a pot of soup. Read the following story, called "Share Soup". Then prepare and cook the soup, letting the children assist in whatever ways they can. Eat the Share Soup and see if the children can name all the different vegetables in the soup. Why is it good to eat lots of different kinds of foods?

SHARE SOUP*

Once upon a time in a small village, the sun was going down and it was dinner time. As usual, everyone was in his or her own little house thinking about the same thing—what shall we have for dinner tonight? But on this particular night everyone thought and thought for a very long time. There was a problem, and it was a problem that everyone shared. No one had enough food in his or her house to make a dinner. **Everyone had the same problem!**

Because this was a friendly little town where everyone knew everyone else, the word soon got around. Neighbors were talking about their problem with each other in the street, on front porches, and over back yard fences. They all agreed that something had to be done soon because everyone was getting very hungry.

There was a man in the town who happened to be a very good cook, and as he was thinking about this problem with his wife, she came up with the answer. "We will make a new and different kind of soup called Share Soup, and you will direct the cooking," she said. Her husband thought this was a wonderful idea that his wife had, and as the townspeople in the village found out about the idea they became more and more excited and happy. But what was Share Soup, they asked? The man's wife explained, "Share Soup is a soup you make with a big pot of water and everyone's share of food. If everyone brings their little share of food home, we can make one big delicious soup for everyone. I call it Share Soup."

"First we'll need a large pot," he said. The people brought the largest pot they could find. "And now," the man said, "water to fill the pot and a fire to heat it." It took many buckets of water to fill the pot. A fire was built on the main street of the town and the pot was set to boil.

"Soup needs salt and pepper," said the man. He began to stir and the children ran to get salt and pepper.

"Salt and pepper makes good soup, but if there were carrots it would taste much better."

"I think I have some carrots," said one woman, and she ran home. She came back with a handful of carrots and put them in the pot.

"Share Soup should really have some cabbage," said one man, and he returned soon with a big head of cabbage which he cut up and put in the pot.

"How I wish we had some potatoes and onions; then this soup would be the most delicious soup ever," the man said. Some children remembered where they'd seen some and hurried home to get them.

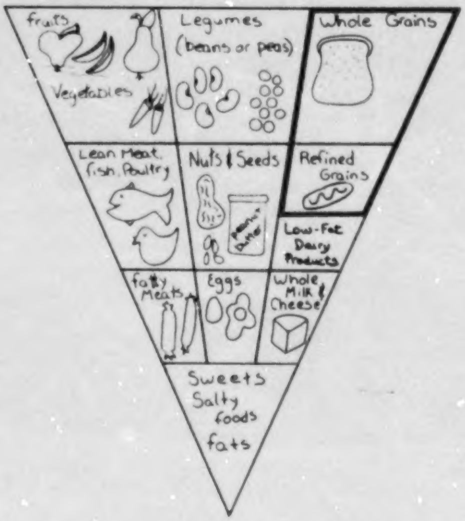
A delicious soup—and all from some water and everyone's share of food. It seemed like magic! As the man stirred the soup he thought, "If we had a little rice and a cup of milk, this soup would be the best soup in the whole world." More people ran home to get a little milk and rice. Soon everyone from the town had put in his or her share of food.

The man who was such a good cook stirred and stirred the soup while everyone watched happily. And then the soup was ready.

"Everyone gets a taste," said the man. "But first, let's set the tables." Great big tables were placed in the main street. All around were lighted candles. Such a soup! How good it smelled! It really was the best soup anyone in the town had ever tasted!

*Based on **Stone Soup** by Marcia Brown. Adapted by Elizabeth Palin, Nutrition Program Assistant, Colorado State University Extension Service, Denver County, Colorado.

Foods For Balance: Grains



The World of Grains

For most of the world's population, grains provide the main source of protein and approximately 60% of the calories. In the U.S., we get only 21% of our calories from grains. In 1906, before we changed our diet toward a greater animal protein consumption, the average American consumed 309 pounds of grain products per year. Now it is down to 114 pounds per person per year.

Since grains are a valuable source of nutrients, their use is worth reviving. They are a good source of carbohydrate with some protein, contain very little fat if any, and have a variety of vitamins and minerals.

We can use grains in our diet in a multitude of ways: to replace the usual mashed potatoes as a meat complement; as an integral part of the main dish; as a breakfast cereal; or as breads, muffins, and crackers.

There are many grains on the market that go unnoticed and uneaten because of the lack of familiarity. The following three recipes give you examples of how you can use barley, bulgur (cracked wheat), and rice. Give them a try. You might be on the forefront of a new movement to **revive the grains!**

MUSHROOM BARLEY

USDA CCFP Requirements

One ½ cup serving meets the grain requirement for lunch or supper. Serve with baked fish and mixed vegetables.

2 tbsp. butter
1 chopped onion (medium size)
1 cup barley (not quick cook)
2 cans beef broth, undiluted
1 4 ounce can mushroom pieces and liquid
½ cup chopped walnuts or pieces (optional)
¼ tsp. nutmeg

Sauté onion in butter. Add barley and brown until golden. Place mixture into 1½ quart casserole. Pour the beef broth over the mixture and add the mushroom pieces and liquid from the can. Add walnuts and nutmeg.

Cover with foil and bake at 350° for 1 hour. Uncover and bake an additional 30 minutes. Add more hot liquid if the mixture looks dry.

BULGUR SALAD*

1½ cups bulgur (cracked wheat)
3 cups boiling salted water

In a mixing bowl, arrange the bulgur and pour boiling water over it. Cover bowl; allow it to stand until cool.

8 green onions, trimmed and chopped fine, with as much green as possible
2 large ripe tomatoes, peeled, seeded, chopped and drained of excess liquid
1 lemon, grated rind and juice
1 cup parsley, finely chopped
⅓ cup olive oil (best quality)
salt
freshly ground pepper

In a sieve, press out any water not absorbed by the bulgur. Return the bulgur to the mixing bowl. Add the rest of the ingredients to the bulgur and season with salt and pepper to taste. Chill the salad, covered, for a least 3 hours.

"This is a grain you may not have used before. Try it. It definitely is superior in taste to white rice."

*From: **A Celebration of Vegetables.** Copyright © 1977 by Robert Ackart, (New York Atheneum, 1977) Reprinted with permission of Atheneum Publishers.

USDA CCFP Requirements

One ½ cup serving meets the grain requirement for lunch or supper and contributes ⅛ cup to the fruit/vegetable requirement.

APPLE RICE BETTY*

4 large tart apples
1 cup cooked brown rice
½ cup chopped walnuts or pecans
¼ tsp. cloves
¼ tsp. cinnamon
¼ tsp. salt
2 tbsp. oil
½ cup honey

Mix honey with spices. Grease baking dish. Place thin layer of rice in dish; add layer of thinly sliced apples and sprinkle with honey, spices, and nuts. Repeat layers until all ingredients are used, saving some honey and nuts for top. Pour oil over all. Bake at 350° degrees until apples are soft. Serve hot.

*From: Jane Kinderlehrer, **Confessions of a Sneaky Organic Cook** (Emmaus, PA: Rodale Press) Reprinted with permission of Jane Kinderlehrer.

USDA CCFP Requirements

One ¼ cup serving meets the fruit requirement and half of the grain requirement for snack. Serve with graham crackers.

BREAKFAST THANKS:

We thank thee for this instant coffee, this Redi-Quick cocoa, this one-minute oatmeal, and the popup waffles. In haste. Amen.

corn cakes
Sugar Snap
Iron +
Wheaty Bran

Cereals: Is the Box More Nutritious Than What's Inside?

Cereals play a major role in the daily nutrition of children. At breakfast, less time is available for food preparation. Quick-to-service foods that any family member can prepare are increasingly being eaten at breakfast. A serving of a ready-to-eat cereal with milk is the most frequent at-home food choice.

When it comes to buying cereal, one short walk down the cereal aisle in a supermarket is enough to leave you in a state of confusion — different colors, different shapes, clever names, games and toys inside, not to mention the pressure from the kids to buy "Zinkos" because of their slick TV jingle.

What kinds of cereals are the most nutritious? Is a fortified cereal better? Which ones have the most sugar? Here are some guidelines to follow:

1. **Whole grain cereal is best.** When grains are milled, many of the nutrients are removed in the outer layers and germ. Not all of the nutrients are added back with enrichment. The minor nutrients, which are of particular concern, are not. Whole grain cereals contain much more fiber than most refined cereals, and fiber is one of the main health benefits from eating grains. Whole grain cereals are your best buy.
2. **"Hot" cereal is generally more nutritious than "cold" cereal.** Grains have to be cooked to be eaten. "Cold" cereals are precooked for you. They are subjected to hot, dry heat which is more destructive of the thiamin and protein than the moist heat you use at home. Air-flakes, puffs, and additional processing lessens the protein availability by as much as 75%. And it is mostly in "cold" cereals that you find artificial colors, flavors, and chemical preservatives, which are not desirable. This doesn't mean that cold cereals are not nutritious, but be sure to choose whole grain cold cereals, rather than refined. To increase the nutritional value of "hot" cereals, cook them in milk rather than water. Add ⅔ cup dry milk to 2 cups water.
3. **Vitamin-fortified cereals are not necessarily better.** It is a good idea to add back nutrients that have been lost through the milling process, such as iron, thiamin, and niacin, but some of today's cereal boxes read more like vitamin pill bottles. Nutrients are added to cereals that never were there in the first place, like vitamins A and D. These "cereals" are essentially

vitamin pills in a sugar grain flake, puff, or blob. And yet it would be impossible to make a "one-a-day" restriction of cereal. Vitamin-fortified cereals are a high profit item for the food industry, and the consumer gets very little benefit from it. For example, it costs a drug company 0.2 cents per serving to add 100% of the U.S.R.D.A. for 10 vitamins to a cereal product. And vitamin C costs just 0.05 cents. In turn, the consumer pays almost twice the price per pound for vitamins that can be easily obtained from other food sources. Remember that vitamin pills are vitamin pills and cereal is cereal, and it is best not to mix the two. Iron-fortified cereals, on the other hand, are an exception. Because of the prevalence of iron deficiency anemia among infants and children, nutritionists and pediatricians recognize the benefits of getting additional iron in breakfast cereals.

4. **Sugared cereals should be avoided.** "Cereal" is not the proper term for pre-sweetened cereals that contain 30-55% sugar. Some consumer groups suggest that they more accurately be called "sugared breakfast food". It is unlikely that children would add as much as 3 teaspoons of sugar to an ounce of unsweetened cereal, which is what they get with some sweetened cereals. The nutritional value from sugared cereals comes mostly from the milk. So if you ate the box along with a glass of milk, at least you would be getting some fiber from the meal!

Average Cereal Costs per Pound

Whole grain "hot" cereals	**$.54-.85**
Whole grain "cold" cereals	**$.85-1.60**
Sugared "cold" cereals	**$ 1.50-2.80**
Vitamin fortified cereals	**$ 2.20-2.80**

SUGAR CONTENT OF BREAKFAST CEREALS*

0 TO 5% SUGAR

Shredded Wheat
Oatmeal
Whole Wheat Cereal
Wheat Hearts
Cheerios
Puffed Rice
Uncle Sam Cereal
Wheat Chex
Grape Nut Flakes
Puffed Wheat
Branola
Roman Meal
Wheatena
Cream of Wheat
Alpen
Post Toasties
Product 19
Corn Total
Special K
Wheaties

6 TO 20% SUGAR

Corn Flakes
Grape Nuts
Crispy Rice
Corn Chex
Total
Rice Chex
Crisp Rice
Raisin Bran
Concentrate
Rice Crispies
Heartland (with raisins)
Buck Wheat
Life
Granola Cereals
Sugar Frosted Corn Flakes
40% Bran Flakes
Team
Granola
100% Bran Cereal
All Bran

21 TO 40% SUGAR

Fortified Oat Flakes
Heartland
Super Sugar Chex
Sugar Frosted Flakes
Bran Buds
Sugar Sparkled Corn Flakes
Frosted Mini Wheats
Sugar Pops
Alpha Bits
Sir Grapefellow
Super Sugar Crisp

41 TO 50% SUGAR

Cocoa Puffs
Cap'n Crunch
Crunch Berries
Kaboom
Frankenberry
Frosted Flakes
Count Chocula
Orange Quangaroos
Quisp
Boo Berry
Vanilly Crunch
Baron Von Redberry
Cocoa Krispies
Trix
Froot Loops
Honeycomb
Pink Panther
Cinnamon Crunch
Lucky Charms

MORE THAN 50% SUGAR

Cocoa Pebbles
Apple Jacks
Fruity Pebbles
King Vitamin
Sugar Smacks
Super Orange Crisp

*From the Journal of Dentistry for Children, September / October, 1974.

BREAKFAST SURPRISE CEREAL*

USDA CCFP Requirements

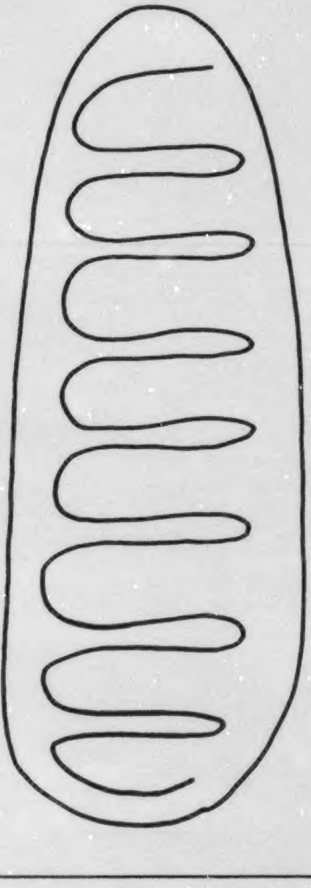
One ¾ cup serving meets the cereal requirement and contributes ¼ cup fruit towards the fruit requirement. Serve topped with chopped, fresh fruit and milk.

2 cups cooked oatmeal
1 ½ cups diced apple (2 apples)
1 cup chopped nuts
½ cup raisins
¼ cup molasses
3 tbsp. honey
1 tsp. cinnamon
¼ tsp. salt

Combine all ingredients in a greased casserole and bake in 400 degree oven for 20 minutes. Serve warm with cream or milk. Makes 6 servings.

"This is not a 'blah' hot cereal!"

*From: **Joanie Huggins. Out of the Sugar Rut.** HAH Publications, P.O. Box 2589, Colorado Springs, Colorado 80901. Reprinted with permission of the author.



Bread – Loafing is Good For You!

Bread is called the staff of life and rightfully so. All cultures have established a staple grain product that is eaten daily. In the U.S., it is mostly wheat bread, tortillas, and corn bread in the South. Bread products are also commonly eaten in the form of pastas, such as spaghetti, macaroni, and noodles. Bread products made from unrefined, whole grains are nutritionally superior to the refined grain foods.

Refined vs. Unrefined Flour

How is refined flour different from unrefined flour? The refining process removes the bran layer and germ from the wheat grain, leaving the endosperm, which is mainly starch and some protein. Unfortunately, most of the vitamins and minerals plus the fiber are contained in the bran and the germ. In refining, there are 22 nutrients removed, and only 8 added back to the flour – a process called "enrichment". In the 1940's when enrichment became required by law, most of the vitamins and minerals had not yet been identified as being essential nutrients, and enrichment seemed to supply most of what was lost. Now we know that enriched flour is inferior to whole grain flour, but it is difficult to change a consumer market that has become accustomed to "Miracle Bread" (named because it is a miracle it is bread).

Whole Grains and Mineral Availability

Unrefined flour and whole grains contain a subtance that may react with minerals in the intestine and keep them from being absorbed. Fortunately, there are ways to counteract this problem that might occur with whole grain foods. Minerals can be made more available during the leavening process in breadmaking by adding foods such as yogurt, sour milk, molasses, or fruit juice to the bread dough.

Questions and Answers on Bread

1. **Is "wheat" bread whole wheat?**

   No. "Wheat" breads are usually made from enriched flour and have less than 50% whole wheat flour added. Read the label for the first ingredient. If it is whole wheat bread, it should say "whole wheat flour".

2. **What is the difference between bleached and unbleached flour?**

   The bleaching process ages flour to improve the rising power. Both whole wheat and enriched flour can be either bleached or unbleached, depending on the flour company. Whether unbleached flour is more nutritious is not clear.

3. **Is it true that darker colored bread contains more whole wheat flour and is therefore more nutritious?**

   No. Many rye or pumpernickle breads are made from a mixture of enriched white and rye flour with caramel color added. Read the label to know what you're getting.

4. **How do "natural" or "wheat berry" breads compare with whole wheat bread?**

   A bread made with enriched flour and a few cracked wheat berries added is not as nutritious as whole wheat bread. A simple rule of thumb: If whole wheat flour is the first ingredient, you're on the right track.

flour
Whole Wheat
1 Lb.

USDA CCFP Requirements

One-half muffin meets the bread requirement for all meals. Serve with hot applesauce at snacktime.

WW ENGLISH MUFFINS*

1 tbsp. dry active yeast
2 tbsp. lukewarm water
1¼ cup hot water
¼ cup heavy cream
1 tsp. salt
2 tbsp. honey
4 cups whole wheat flour
3 tbsp. butter, softened
10 muffin rings or 10-7 ounce tuna cans with both ends removed and well buttered

Dissolve yeast in warm water and set aside for 10 minutes. Combine hot water, cream, honey and salt in bowl. Stir in yeast mixture. Add 2 cups of the flour and beat well. Cover mixture with a damp towel and let rise in warm place for about 1½ hours or until mixture collapses back into the bowl. Beat in the butter and knead in the remaining flour. Set greased muffin rings or tuna cans on a cold buttered griddle and fill each half-way with muffin batter. Cover and let rise until doubled in bulk, about 30 minutes. Heat griddle at 400°. When muffins are set and browned, remove rings and turn to brown other side. Cool slightly on rack. To serve, split with a fork and toast. Makes 10 muffins.

"These tasty muffins are wonderful all by themselves or topped with creamed hard-cooked eggs."

*From: Joanie Huggins **Out of the Sugar Rut.** HAH Publications, P.O. Box 2589, Colorado Springs, Colorado. Reprinted with permission of the author.

USDA CCFP Requirements

One-half tortilla meets the bread requirement for all meals. Try a tortilla and bean sandwich at lunchtime.

HOMEMADE TORTILLAS*

2 cups flour
1½ tsp. baking powder
1 tbsp. lard

Add small amounts of water until dough is soft enough to spread. Pinch off small pieces of dough. Roll out with rolling pin to pie crust thickness and small pancake size. Cook on hot ungreased griddle.

*From: Collen Luedecke, Day Care Provider, Pueblo, Colorado

USDA CCFP Requirements

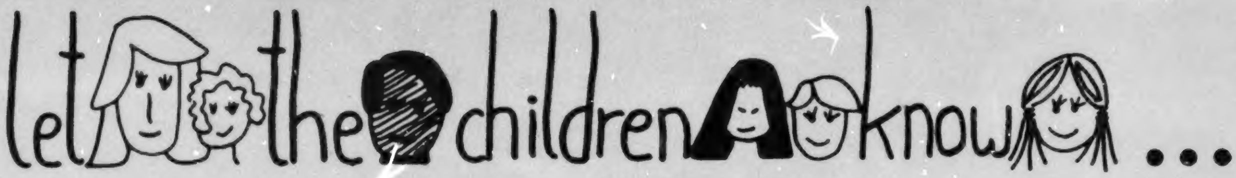
One-half pancake serving meets the bread requirements. Try some pancakes at snacktime and let the children help with the preparation.

ORANGE WHOLE WHEAT PANCAKES*

2 eggs
2 cups whole wheat flour
½ tsp. salt
¼ cup oil
½ tsp. baking soda
1½ to 2 cups orange juice

Mix eggs and oil. Sift together dry ingredients. Add to egg mixture. Mix in orange juice until desired consistency is reached. Cook on griddle or frying pan.

*From: **The Vegetarian Epicure,** by Anna Thomas. Copyright 1972 by Anna Thomas. Reprinted by permission of Alfred A. Knopf, Inc.



let the children know ...

- **that we need to eat breads and cereals every day to stay healthy**
- **that there are many different kinds of breads to eat**
- **that sweetened cereals are not as good for us as unsweetened cereals**

Fred, The Horse Who Likes Bread

Read the following story to the children:

There once was a horse named Fred. When he was young, he pulled the plow in Farmer Jones' fields. In the early spring, he turned over rich black soil. And he pulled the disc and the harrow to make the fields ready to plant. Then he pulled the planter and drill when his owner planted the crops that grew in the summer.

Fred helped with the harvest too, pulling the wagons loaded with grain. But best of all, Fred liked the wheat harvest. Every morning he was ready to begin work in the hot sun. Everyone who knew Fred said he always worked hardest at wheat harvest.

They also said he worked so hard because he knew the goodness of wheat and of all the foods in the bread and cereal food group. His owner used to give him bread from his noontime sandwiches. Fred loved it. It was good for him too, and he worked all the harder.

They started calling him "Fred, the horse who likes bread".

Fred is retired now. Machines do all the hard work he used to do. But he's still crazy about bread.

Story taken from: **Take a Nutrition Break!** Northern Colorado Educational Board of Cooperative Services, Longmont Colorado, 1980, pg. 56.

Do horses really eat bread? Have some wheat berries, oats, and other grains for the children to see. Explain that horses eat the grains that we eat, only we grind most of our grains before we cook them. Have the children eat a piece of bread and then pretend that they are horses, like Fred.

Whole Wheat Sprouts

Use wheat berries to show how seeds are sprouted. Wheat berries can be purchased at any natural food or health food store. Do not purchase wheat berries from a garden or seed store as they may be treated with a poisonous insecticide.

Soak ¼ cup wheat berries in water in a widemouth jar overnight. Pour off this water and cover the mouth with cheesecloth. Rinse with cool water 2 — 3 times a day for several days. Compare the wheat seed before and after sprouting. Eat the sprouts in a salad or right out of the jar!

Let's Get Corny

Dried corn is a grain that is used in many ways: in corn bread, tortillas, corn fritters, and as hominy and grits. It can be ground into corn meal in the blender just like wheat berries. Here is a cornmeal recipe that children love.

HUSH PUPPIES

1½	cups cornmeal	½	cup milk
½	cup flour	½	onion, finely chopped
4	tsp. baking powder	2	eggs
1	tsp salt	2	tbsp oil

- Let the children examine the corn kernels before putting them into the blender. Grind at top speed for 2–3 minutes. Stop the blender 2 to 3 times and stir the cornmeal.
- The children can help measure the dry ingredients into the bowl, crack the eggs, add the onion and oil.
- After the batter is stirred, give each child some dough to form into 1 inch balls. Fry in hot oil in a skillet, about 4 minutes on each side. Drain on paper towels.

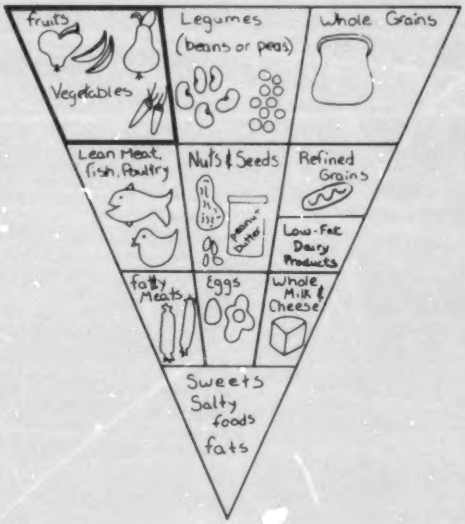
Adapted from: Mary Ann Peterson and Susan Smith. **Fun With Food.** (Jefferson County Extension Service, 15200 West Sixth Avenue, Golden, Colorado 1978) p. 32.

Sweet Cereals—No More, Out the Door!

Sugar-coated cereals with games, prizes, gimmicks, and jingles are tough acts to follow. Children are more likely to ask for these sugared cereals because of their attractive advertising on T.V.

Make unsweetened cereals special by allowing the children to "decorate" their own cereals. Prepare toppings, such as raisins, chopped nuts, crushed dried bananas, chopped prunes, or fresh in-season fruit. Let the children top their hot or cold cereals with the topping of their choice.

Foods for Balance: Fruits and Vegetables



Fruit – Nature's Sweet Tooth

A fruit is the part of a plant that contains the plant's seeds. It was nature's way to make fruit colorful and sweet so that the seeds would get distributed away from the mother plant.

Birds and mammals can't resist a tasty fruit morsel. As animals eat the fruits and move elsewhere, the seeds pass through their digestive tracts and come out ready to sprout or germinate. They are usually deposited in a new spot and fertilized along with the "planting". Birds carry fruit away from the tree and drop the seeds in a faraway place after enjoying the fruit pulp.

There are some fruits that are classified as vegetables because of the way they are eaten. In 1893, the United States Supreme Court ruled that a tomato is a vegetable because it is eaten as part of the main course. They also ruled that any plant part that was eaten as an appetizer, dessert, or "in-hand" was a fruit. This ruled out zucchini, cucumbers, green peppers, peas, string beans, corn, eggplant, and avocadoes, all of which are technically fruit. We can change this by eating string beans for dessert and eggplant "in-hand". But this could get "out of hand".

The Nutrient Goodies in Fruits

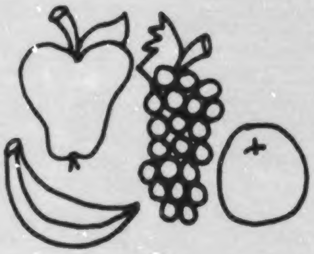
On the average, most fruits are similar in nutrient content. They are good sources of vitamins C and A. Cantaloupe is an exceptionally rich source of vitamins, containing large amounts of C and A, plus additional B vitamins. Eating a piece of fresh, raw citrus fruit, such as an orange or grapefruit, is an easy way to be sure you've met your vitamin C requirement for the day. Since vitamin C is easily destroyed by heat in cooking, the raw source will assure that the need is met. Apples are beneficial for additional reasons besides their vitamin content. The old saying, "An apple a day keeps the doctor away", has some truth. Apples contain iron, a small amount of vitamin E, and certain substances that may help to lower cholesterol levels in the blood which may prevent heart disease.

Fresh Fruits All Year-Round

In the last 150 years, there has been a great increase in the number of fresh fruits available to us all year. In 1835, fresh strawberries were available in northern U.S. cities for only one month. Today fresh strawberries are available year-round,

"Orange" you glad to know that:

- **An orange can have as many as 10 seeds in it and still be called a "seedless" orange.**
- **A food dye is sometimes added to ripe green-colored oranges to give them their orange color.**
- **If Rhode Island had as many orange trees growing as Florida, California, and Texas have, almost the entire state would be covered with orange trees.**
- **It's possible to grow oranges, grapefruits, tangerines, and lemons, all on the same tree!**
- **During the 18th century, oranges were a delicacy in Europe and eaten only by kings, queens, and other nobility.**



although they are quite expensive off-season. Because of new plant varieties, fruits can be stored for longer periods of time. Refrigerated trucks, trains, and planes bring us at least 50 different fruits and vegetables, even when snow covers the frozen ground.

Take advantage of fresh fruits. They make a perfect dessert. They have bright color, sweet taste, variety in texture, complement any meal, and are nutritious to top it all. They are the perfect food for weaning the family and children off the traditional desserts, such as cakes, cookies, and other sweets.

Dried Fruits

Dried fruits are fully ripened fruits that have about 75% of their moisture removed by dehydration or sun-drying. These fruits are allowed to tree-ripen longer than those used for canning, freezing, or fresh produce, so they have a higher sugar content and fruitier taste. Prunes and raisins are a good source of iron and an effective natural laxative. Apricots and peaches are good sources of vitamin A.

Dried fruit is a nice treat in small amounts. But we need to be careful not to overdo a good thing. Dried fruit is high in natural sugars that can stick to the teeth and cause tooth decay in the same way as refined sugar. Also, dried fruit is condensed from several pounds of fresh fruit. For example, one pound of dried apricots represents 6 to 8 pounds of fresh apricots and contains 1200 calories compared to 220 calories found in the 6 to 8 pounds of fresh fruit.

FROZEN FRUIT POPS

USDA CCFP Requirements

One five-ounce serving yields ½ cup fruit. This meets the two-fruit requirement at lunch or supper. For snack, serve with milk or crackers.

A nutritious frozen snack that children will love. Prepare ahead and have snacks ready for those busy, hectic days.

1 cup bananas, mashed
1 package (10 oz.) frozen sliced strawberries, partially thawed
1 can (13½ oz.) crushed pineapple, undrained
⅔ cup evaporated milk

Combine bananas and strawberries; beat thoroughly. Stir in pineapple. Add milk gradually, beating until blended. Spoon into paper cups. Insert popsicle stick or plastic spoon into center of each cup. Freeze until solid. Peel off paper and serve.

Recipe from: Mary Ann Peterson, Susan Smith, **Fun With Food,** C.S.U. Cooperative Extension Service, 15200 West Sixth Avenue, Golden, Colorado, 80401, p. 46.

FRUIT POPOVERS

Easy to make. Great use for fruit that is a little too ripe for serving. Suitable for breakfast or dessert.

Mix together thoroughly:

1 cup whole wheat flour
1 or more eggs
1 cup milk
dash cinnamon

Heat buttered muffin pan in very hot oven until it hisses when sprinkled with water. Fill each muffin cup slightly over half full with batter. Have ready: mashed bananas, blueberries, sliced peaches, or fruit of your choice. Place a teaspoonful of fruit on top of each popover and bake at 450° for 30 minutes. Lower temperature to 350° and bake for 15 more minutes. Makes 12.

USDA CCFP Requirements

One muffin meets the bread requirement for lunch, supper, or snack. Serve with milk at snacktime.

Recipe from: Marilyn Bennett, Wildwood Child Care Food Program.

Guess Who's Coming to Dinner . . . Vegetables!

"Yuck. I hate beans."
"No vegetables for me, thank you."
"What are those things?"
" I don't like new stuff."

Do you hear these kinds of comments frequently? If so, we need to put on our thinking caps and find ways to get vegetables to be an accepted and even preferred part of the meal.

Why Are Vegetables So Important?

Generally speaking, vegetables are low in calories, high in fiber, and contain numerous vitamins and minerals in significant amounts. They also can be eaten raw or cooked, served as a side dish or a main dish, and offer a variety in color, taste, and texture. They are the most versatile of the four food groups and have the most potential for creative cooking.

With all of these claims to fame, why is it that so many Americans don't like vegetables? Lots of reasons. Maybe Daddy won't eat them (meat 'n potatoes man). Maybe they are referred to as "rabbit food". Maybe whoever cooks says they are too much trouble. Maybe they are overcooked and mushy. Maybe we're still rebelling from childhood when Mom said a million times, "Eat your spinach. It's good for you."

Ways to Introduce Vegetables

It is not as easy to like vegetables as fruit because fruit is sweeter. For that reason, some nutritionists and pediatricians have suggested that infants, needing more time to learn to accept vegetables, should be introduced to vegetables first, so they don't learn to expect foods to taste sweet. Here are some ways to make vegetables acceptable to your children:

- Introduce them when your children are hungry.
- Let the children help in preparation, such as washing the potatoes, tearing the lettuce, and shelling peas.
- Make them attractive. There is lots of color in a tossed salad or mixed steamed vegetables.
- Grow your own. Vegetables that a child picks from the garden will be eaten when the refrigerated vegetables won't.
- Mash left-over vegetables, combine with egg and flour, and fry up as a vegetable pancake.
- Add diced vegetables to meat loaf and spaghetti sauce.

REMEMBER . . .

- **Eat a dark green or orange vegetable every other day, such as spinach, Swiss chard, mustard greens, sweet potatoes, yellow squash.**
- **Eat a vitamin C—containing fruit or vegetable daily, such as oranges, grapefruit, green pepper, red or white cabbage, broccoli.**

Fresh - Frozen - Canned? ?

People sometimes wonder whether they should buy fresh vegetables instead of canned or frozen, since fresh vegetables are the least processed. The order–in terms of vitamin content–often is: 1) home grown vegetables, 2) fresh or frozen, and 3) canned.

It should be no surprise that home grown produce is highest in nutrient content. Vitamin loss begins as soon as vegetables are picked. So, the less time there is between harvest and consumption, the better. Home grown vegetables have another advantage—pesticide use can be controlled by the home gardener.

The fact that frozen vegetables may contain as many vitamins as fresh is surprising to most people. There are a number of reasons for this fact. Large vegetable producers use the "cream of the crop" for freezing, pick at the peak of development, and freeze immediately, which has very little effect on vitamin content. On the other hand, vegetables that are to be sold as fresh produce are frequently picked green and trucked long distances before they are sold.

Fresh vegetables are an excellent source of vitamins even though they may suffer some nutrient loss through transportation. When fresh vegetables are wilted or old, buy their frozen counterpart. Frozen vegetables that have been processed in a sauce add calories, fat, food additives, and unnecessary expense. Buy the plain frozen vegetables.

Canned vegetables are ranked last because the high temperatures used in canning destroy some vitamins and others leak out into the water which is usually thrown away. Again, this does not mean that they are not good food. Reports that all the vitamins are destroyed are exaggerated. Canned tomatoes, sweet potatoes, and mustard greens are still good sources of vitamin C. One fourth cup canned carrots or ⅓ cup canned spinach provides all the recommended vitamin A for the day. In whatever form, vegetables are a good source of nutrients and should be included in the diet at least twice a day!

GREEN BEAN CASSEROLE

The creamy cheese sauce and delicate seasonings make this a family favorite.

1½ lbs. fresh or frozen green beans. To prepare fresh green beans: remove stems, halve, and rinse in cold water. Steam for 12 minutes until tender. Refresh in cold water, drain, and reserve.

4 tbsp. butter	**1½ cups grated mild cheddar cheese**
4 tbsp. flour	**grated nutmeg**
2½cups milk	**dash salt, pepper**

In large saucepan, heat butter, flour. Add milk, stirring constantly, until mixture is thickened and smooth. Add cheese, stirring until melted. Season to taste. Gently fold beans into cheese sauce. Top with 1 cup bread crumbs toasted in 1 tbsp. butter. Bake at 350° for 15 minutes.

USDA CCFP Requirements

One ⅜ cup serving yields approximately ¼ cup vegetable which meets half the vegetable requirement for lunch or supper. Complement with a baked potato.

ZUCCANOES

Children like the idea of eating out of a "canoe". They can help with the stuffing.

Wash medium sized zucchini squash. Steam for ten minutes. Cut in half lengthwise and scoop out the centers. Mix zucchini with left-over meat, diced onion and celery, and tomato paste. Stuff the "canoes", top with Parmesan cheese and thyme. Bake 20 - 30 minutes at 350°.

USDA CCFP Requirements

One serving of "zuccanoe" will meet the vegetable and meat requirement for lunch or supper if the "canoe" contains a total of ½ cup mixed vegetables (zucchini, onion, celery, etc.) and 1½ ounces meat and cheese.

SPINACH SURPRISE DIP

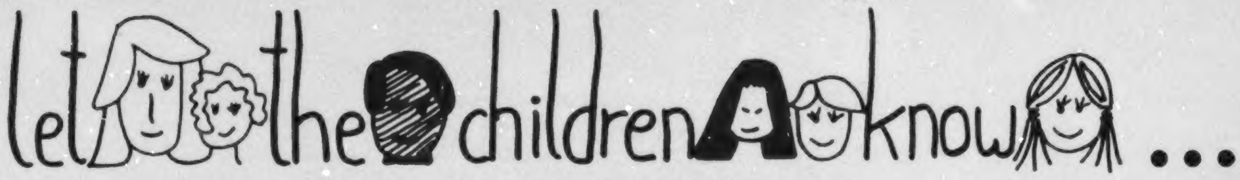
When this dip is served for company, everyone asks for the recipe. It is tastier to make it up a day or two ahead so flavors meld together. It can also be made with sour cream or yogurt.

- **2 cups fresh chopped spinach (chopped very fine)**
- **2 cups parsley**
- **½ cup mayonnaise**
- **1 cup green onions, including tops (chopped very fine)**

Mix all together and serve with fresh vegetables or crackers.

USDA CCFP Requirements

One ⅜ cup serving of dip, served with ¼ cup fresh vegetables, meets the vegetable requirement for lunch, supper, or snack.



let the children know ...

- **that there are foods called fruits and vegetables.**
- **that we need to eat fruits and vegetables everyday to stay healthy.**
- **that we should eat many different kinds of fruits and vegetables.**

Mystery Can

This is an activity that teaches the children which foods are fruits and which are vegetables and will help to teach them the names of the foods.

Place a fruit or vegetable in the bottom of a one pound coffee can. Cover it by stretching a sock over the top of the can. Have the children reach through the sock into the can. They must try to think of the name of the fruit or vegetable which is inside the mystery can by feeling it. They should keep the name a secret until all of the children have had a chance to feel it. Before giving the name of the fruit or vegetable, ask the children such questions as: What color do you think it is? Did it feel rough or smooth? Is it round or long? Does it have a peeling?

Let the children take turns in opening the can and revealing the mystery food. How many guessed correctly?

Apples, oranges, bananas, potatoes, green peppers, zucchini, and onions are all good mystery can foods.

Apple Tree

Show pictures of orchards or fruit growing on trees. Then illustrate where apples come from by reciting the following rhyme:

Way up high in the apple tree (raise hands high above head, index fingers and thumbs making a circle)
Two little apples smiled at me. (smile)
I shook that tree as hard as I could, (shake arms)
And down came the apples, (drop one arm to knee, then drop the other)
Mm . . . Mm . . . Mm . . . were they good! (rub stomachs)

Taken from: Mary Ann Peterson, Susan Smith, **Fun With Food**, C.S.U. Cooperative Extension Service 15200 West Sixth Avenue, Golden, Colorado, p. 2.

Vegie Tasting Party

Here is an opportunity for children to make a game out of tasting new vegetables. Cut into bite-size portions the following vegetables: broccoli, cauliflower, radishes, zucchini, cucumber. Invite the children to taste them and describe each one. To encourage them to taste all of the vegetables, include riddles: taste the vegetable that looks like a white flower (cauliflower); find the little trees (broccoli); taste the red rock (radish); taste the vegetable wheels (zucchini or cucumber rounds).

Variations:

- Blindfold the "taster". Have another child pick the vegetable that will be tasted. Let the "chooser" give hints if the "taster" can't identify the food.
- Have the children taste the vegetables while holding their noses. Point out that smell is an important part of taste.
- Serve the vegetables with a dip:

  1 cup creamed cottage cheese
  2 tbsp. lemon juice
  2 tbsp. milk
  2 tbsp. mayonnaise
  2 tbsp. chopped green onions
  ¼ cup chopped parsley
  ½ tsp. tarragon leaves
  dash pepper

  Mix ingredients in a blender, scraping sides of blender jar with rubber scraper and reblending as required until mixture is smooth and creamy. Makes 1⅓ cups.

While the children are eating the vegetables, explain to them that everyone needs to eat vegetables every day to stay healthy. Vegetables help them see better (point to eyes), make their skin healthy (point to skin), give them strong teeth and bones (point to teeth and bones), and they'll be happy because they are healthy (big smile).

Learning About Seeds

Children will learn that plants come from seeds. Play a finger game about a seed:

I plant a little seed in the dark, dark ground (hide one finger in the fist of the other hand)
Out comes the sun big and round (make large circle with arms)
Down comes the cool rain, soft and slow (lower arms slowly, wiggle fingers for rain)
Up comes the little seed, grow, grow (hide finger again in the other fist. Slowly push it up through the space between bent thumb and bent index finger)

Taken from: Mary Ann Peterson, Susan Smith, **Fun With Food,** C.S.U. Cooperative Extension Service, 15200 West Sixth Avenue, Golden, Colorado 80401 p. 12.

Children who live in a city and have not had the chance to see vegetables or fruit growing in a garden do not easily relate a growing plant to the box or can of vegetables from the freezer or cupboard. By growing bean sprouts, they will have an opportunity to eat the plants they grow.

- Wash mung beans and soak overnight in lukewarm water.
- Drain and let each child put some in the sprouting jar. Use a wide-mouth quart canning jar.
- Cover the jar with cheesecloth fastened with a rubber band.

- Rinse two or three times a day and drain off excess water through the cheesecloth.
- Beans should sprout in six to eight days.
- As the sprouts progress, explain to the children what is happening. Talk about how plants need sunlight, water, etc.
- Let the children harvest the sprouts and eat them in a salad or on a sandwich.

The Vegie Underground

We eat different parts of vegetable plants. When we eat broccoli, cauliflower, and artichokes, we are eating the flower. With spinach, lettuce, and mustard greens, we are eating the leaves. Vegetables like carrots, potatoes, and onions are roots. This activity familiarizes the children with root vegetables and shows them that root vegetables grow underground.

- Purchase root vegetables, such as, carrots, radishes, green onions, turnips or beets, with the greens still attached.
- "Plant" the vegetables in a tub or bucket filled with dirt.
- Gather the children around the mini-garden. Have them describe the vegetable tops. Ask if anyone can guess what vegetable is growing under the ground.
- When everyone has had a chance to guess, ask several to pull up the plants one at a time. Most of the children will get very excited by this activity, so "replant" the vegetables to give everyone a chance to be a gardener.
- Wash the vegetables. Discuss color, shape, and texture.
- Prepare some of them for a snack.

Taken from: Mary Ann Peterson, Susan Smith, **Fun With Food,** C.S.U. Cooperative Extension Service, 15200 West Sixth Avenue, Golden, Colorado 80401 pp. 11-12.

Alligator Pears

The avocado is called an "alligator pear" in Mexico. Show the children the various parts of the avocado and explain that it is a fruit because its seed is carried inside. Tomatoes, squash, pumpkins, and cucumbers are also fruits for this same reason. Here is a poem about alligators:

Alligator, alligator, you look so mean (look mean)
Alligator, alligator, why are you green? (point to something green)
You live in the water and on the land (swim like a fish, walk around on the land)
If I know what's good for me,
I'll look where I stand! (look around to be sure there aren't any alligators)

Let the children help make guacamole dip:

1	**large ripe avocado**	**1**	**small tomato, diced**
1	**tbsp. lemon juice**	**1**	**tbsp. mayonnaise**
1	**small onion, minced**	**dash of garlic salt and chili pepper to taste**	

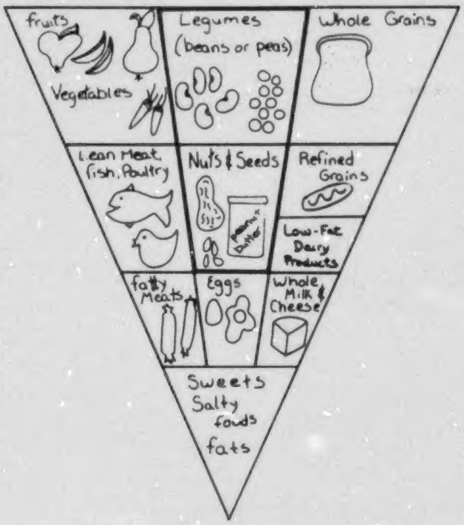
Mix ingredients well. Serve as a dip with raw vegetables or crackers.

Taken from: Ellen S. Marbach, Martha Plass, and Lily Hsu O'Connell, **Nutrition in a Changing World: A Curriculum for Primary Grades 1-3.** Provo, Utah: Brigham Young University Press, 1979 p. 20.

Foods For Balance: Beans, Nuts, Seeds

Meat Is "Bean" Replaced

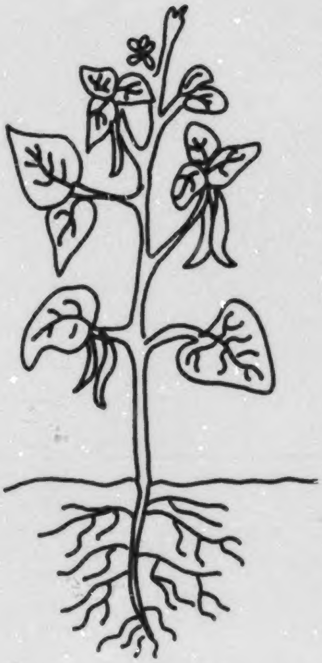
Dried beans have long been called "poor man's meat". We hear people say, "During the Depression, things were so bad we had to eat beans every day." When financially able, people seem to replace the excellent and cheap nutrition which beans offer with the more costly nutrition of meat. Except for a lower protein availability than meat, beans offer nutritional advantages, such as high in fiber, and low in fat and calories. Combining beans with other foods increases their protein content to a level comparable to meat at a fraction of the cost.



Beans Have Personality

There are many different kinds of beans, each lending itself to a unique style of preparation. Here is a brief run-down on the most commonly eaten beans and how they can be used.

- Pinto and red kidney beans are favorites in the U.S. and Mexico. Season with chili, tomato sauce, or a small amount of ground beef. Both can also be eaten cold in salads or in a vinegar and oil marinade.
- White, small white, or navy beans are mild tasting and readily absorb flavors. Cook with a ham bone or tomato sauce.
- Black beans are a staple food of South America. They contain the highest source of iron from beans, especially when cooked in a cast iron dutch oven. Season with meat bones, onions, garlic, and lemon juice.
- Mung beans are small dark green beans native to India. They are related to lima or white beans. They are commonly used for bean sprouts or can be cooked into a thick soup or mush.
- Soybeans are commonly eaten in Japan. They have the highest protein source of all the beans and can serve as a suitable meat substitute. Although the U.S. is one of the largest soybean growers in the world, most of our soybeans have been going into cattle feed. But this seems to be changing. As people become aware of soybeans as a cheap and nutritious protein source, they are using them more frequently. They have a nut-like flavor and will blend with many seasonings.
- Split peas and lentils are quick cooking beans. They make a nice balance in flavor and color if mixed and cooked together with carrots, onions, and tomato sauce.



- Limas and black-eyed peas are Southern favorites. Cook and serve with fried okra and sweet potato pie.
- Garbanzo beans are a staple of the Middle East. After cooking, blend with sesame seed butter (tahini), crushed garlic, and lemon juice. This makes a delicious spread for crackers or pita bread. They can also be served cold in Three Bean Salad.

Preparing Dried Beans

Here are some simple steps in preparing dried beans.

1. Wash and sort.
2. Soak for 1 hour or overnight to decrease cooking time. Or, boil one cup dried beans in 2-3 cups water for 2 minutes. Let stand for 1 hour. Then cook.
3. Do not rapidly boil beans as they tend to break up. Gently cook or simmer. Cooking time varies from ½ to 2 hours, depending on the bean.
4. To prevent foaming, add 1 tbsp. oil per cup dry beans.
5. Pressure cooking saves time, but be sure to follow cooker directions.
6. Cooked beans freeze well and will keep 4-6 months in the freezer.

No Gas Shortage With Beans

Beans have a bad reputation for causing gas. The reason for this is that certain parts of the beans are not digestible by humans. When these substances reach the large intestine, bacteria break them down. The result is that gas is produced.

There are some ways to decrease gas production. By soaking the beans overnight and pouring off the soaking water, some of the gases will be removed. Also, the more often beans are eaten, the less gas is produced, for reasons that are not really known.

Since beans are such a good food, both from an economic and nutritional standpoint, don't hesitate to eat beans. Just get your friends to eat beans, too!

GASSY BEAN RATING

Here's an estimate of the gas mileage you'll get from beans:

Most gas – soybeans, red beans, black beans

Moderate gas – pintos, small whites, green peas, great northern beans

Least gas – garbanzo beans, limas, black-eyed peas

USDA CCFP Requirements

Serve ¼ cup bean spread at snacktime or ½ cup at lunch or supper to meet the meat alternate requirement.

SIMPLEST BEAN SPREAD*

Just about any leftover beans can be made into tasty sandwich spreads, and except for garbanzos and soybeans, most of them can be used as is, without grinding or blending. A fork or a potato masher will usually do the job. Blend in two or more tablespoons of ketchup (preferably homemade) or sauté minced onion and add. Chopped fresh parsley adds liveliness and so do lemon juice and vinegar.

*Reprinted by permission from **Laurel's Kitchen: A Handbook for Vegetarian Cooking and Nutrition** by Laurel Robertson, Carol Flinders and Bronwen Godfrey. Copyright 1976 by Nilgiri Press, Petaluma, California, 94953.

HOPPIN' JOHN

1 cup dried black-eyed peas
water
¼ lb. salt pork or bacon, diced
1 dried red pepper pod, crushed
3 cups cooked rice
1 tsp. salt
¼ tsp. pepper

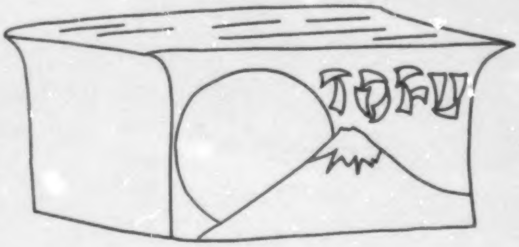
Soak black-eyed peas overnight in water to cover or add water to cover and bring to boiling. Remove from heat; let stand 1 hour. Add salt pork or bacon, pepper pod and additional water to cover black-eyed peas, if necessary. Bring to a boil; simmer 35 minutes or until peas are very tender; stir in rice, salt, and pepper. Turn into a greased 10-cup casserole. Cover. Bake in moderate oven (350°) 20 minutes or until liquid is absorbed.

USDA CCFP Requirements

One ¾ cup serving meets both the meat alternate and grain requirement for lunch or supper. If the serving size is less, serve with cheese slices and whole grain crackers.

Tofu-Ancient and Honorable

Tofu has been the low-cost protein backbone of the oriental diet for over 2,000 years. Customarily, in China and Japan it is prepared fresh each morning in small shops and bought in the same way as we buy fresh bread.



Tofu is a white, cheese-like food that is made from soybeans. Because of its rather bland taste, it can be seasoned and fixed in a multitude of ways. There are whole cookbooks that have only tofu recipes—with everything from tofu spaghetti to tofu cheesecake.

Tofu is a highly nutritious food. It has a protein content that is almost as good as meat, has no cholesterol, is low in fat, and is a good source of calcium. Although it is not yet accepted as a meat substitute on the USDA Child Care Food Program, it is still a good healthy food to incorporate into the diet.

Tofu is available in the produce section of most supermarkets. It is freshest when eaten prior to the expiration date marked on the package. Once opened, to retain freshness change the soaking water daily. It has a longer shelf life than meat, but the taste begins to deteriorate 2 weeks after the tofu was made.

Ways to Use Tofu

Here are some tofu suggestions:

- Add ½ cup crumbled tofu to 4 beaten eggs. Scramble in a skillet. Season as desired.
- Cut tofu into ½" square cubes. Add to spaghetti sauce and simmer 10 minutes before serving.
- Use tofu as an extender in party dips. Mix with yogurt, cottage cheese, sour cream or cream cheese in half and half proportions. Use this mixture in any dip recipe.
- Cut the tofu into slices about 2" by 3". Bread the slices by dipping in an egg mixture and flour. Brown in 2 tablespoons of oil in a skillet. Serves as a complement to seasoned rice.

Eatin' Goober Peas

Peanut butter is an all-time favorite. Rarely do you get a "no" when you ask, "How about a peanut butter sandwich for lunch?" But don't worry. Your child is making an excellent choice. Peanut butter is a good protein source. It also provides a high level of niacin, plus thiamin and riboflavin. Of the 15 or so minerals essential to human nutrition, 11 are in peanut butter.

There is about the same amount of fat in a peanut butter sandwich as in a 3 ounce cooked hamburger. But there is a significant difference between the two types of fat. Meat contains saturated fat, the kind that is associated with heart disease, and it also contains cholesterol. Peanut butter, on the other hand, contains polyunsaturated fat, the "good" kind, and contains no cholesterol.

For a product to be called "peanut butter", it must contain at least 90% peanuts. The other 10% can be sweeteners, hydrogenated vegetable oils, and salt. Vitamins, artificial sweeteners, or flavorings are not permitted.

The hydrogenated vegetable oil keeps the peanut oil from separating from the peanut butter. Such products spread more easily and are sometimes called "homogenized". "Old fashioned" or "natural" peanut butters contain peanuts and salt, or just peanuts. The oil tends to rise to the top of the jar upon standing. These products are preferable from a nutritional standpoint because they lack hydrogenated oils and sweeteners.

Old
fashioned
Style
Nutty
Peanut
Butter

Dr. George Washington Carver, a Black botanist, discovered many uses for peanuts. He developed over 300 products using the peanut plant, including ink, industrial diamonds, shampoo, and shaving cream.

Try Some Seeds—They'll Grow on You!

Seeds are a plant's future. They contain the plant embryo which has its own built-in supply of protein, oils and starches. That's why they can be sprouted into new plants. Because they are such rich nutrient sources, they make excellent food for us. Actually, nuts, grains, and beans are also seeds because they are embryo-containing. But for practical purposes, we place them into separate categories because they are each used differently in our diets.

When we think of the seeds we eat, we probably think of sunflower and sesame seeds. The way they are most commonly sold in the supermarkets is not the best way to purchase or eat them. Sunflower seeds are normally sold as snack food still in the shell. They have been roasted at high temperatures, salted, and are very expensive. Sesame seeds have usually lost their calcium-rich and perfectly edible hulls and are sold on the spice shelf at prices that would shock us if we knew any better. Buy seeds in bulk from natural food stores or food cooperatives. Prices are much lower, and the seeds are untoasted.

Other good edible seeds are squash and pumpkin seeds. Both are good sources of protein, as well as zinc and other trace minerals. Dry them in the fall when they are plentiful and snack on them through the winter.

PEANUT BUTTER SQUARES

½ cup honey
½ cup peanut butter
⅓ cup sesame seeds
⅓ cup chopped nuts
1 cup powdered milk

Melt honey and butter over low heat and mix. Take off stove. Add rest of ingredients and mix well. Press into 8" by 8" pan. Refrigerate. Cut into small squares to serve.

USDA CCFP Requirements

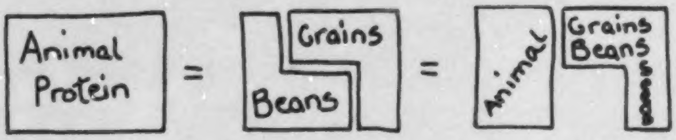
One 4" x 2" serving provides 1 tbsp. peanut butter which meets the meat alternate requirement for snack. Serve with milk.

Protein Combining

Since plant proteins are not complete with all the essential amino acids, it is necessary to match or combine certain plant foods to maximize protein quality.

The body uses amino acids from protein in the diet as building blocks to remake whatever proteins are needed. If all the different ingredients (amino acids) aren't present, a protein can't be made. It is like making a cake. If the recipe calls for 1 cup of milk and you only have ½ cup, you can only make half the recipe. Protein combining is an attempt to have all the ingredients at one time in correct amounts.

How Do We Do It?



Protein combining is done by eating certain foods together at the same meal. The best combinations are: grains with beans, beans with seeds, and dairy products with grains. The following chart will give you some food preparation ideas.

PROTEIN COMBINING CHART

BEANS + GRAINS

Beans + Tortillas
Pea Soup + Cornbread
Baked Beans + Whole Wheat Biscuits

BEANS + SEEDS

Hummus + Tahini (garbanzo beans and sesame seeds)
Soynut Snacks + Sunflower Seeds.

SEEDS + DARK GREEN VEGETABLES

Sesame Seeds + Swiss Chard
Sunflower Seeds + Broccoli

EGGS, CHEESE, MILK + GRAINS

Spaghetti + Cheese
Oatmeal + Milk
Toast + Eggs
Rice Pudding

CHEESE, EGGS + BEANS

Pinto Beans + Cheese (tacos)
Beans + Eggs

CHEESE, EGGS + DARK GREEN VEGETABLES

Broccoli + Cheese Sauce
Spinach Souffle

Eating Low on the Food Chain-Not High on the Hog

All of the plants and animals we eat are part of a food chain. The chain begins with the sun which is our only energy source. Green plants capture this energy and change it into carbohydrates, fats, and proteins. Then animals (like us) eat the plants to get the sun's energy, or else they eat the animals that ate the plants. The chain can keep going to include as many as four or five links if we eat an animal that ate an animal that ate an animal that ate the plant!

There is energy lost at each link of the food chain. The plant passes on approximately 10% of the sun's energy to us. When animals eat plants, they lose another 90% of that 10%. The further up the chain we eat, the more energy gets lost as heat along the way. Eating an animal is like eating sunshine "third hand". It is much more energy efficient to eat as low on the food chain as possible.

Many more people can be fed from eating plants than from the animals who ate the plants. For example, one acre of corn can feed 20 times more men than an acre of corn used to raise animals for meat. This is important in a world of shrinking resources and growing hunger problems.

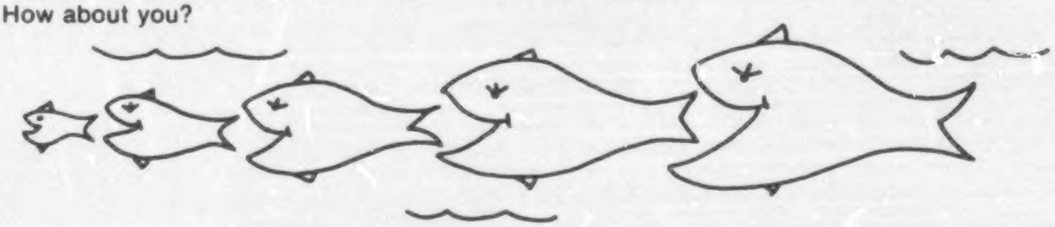
Are There Nutritional Risks in Not Eating Meat?

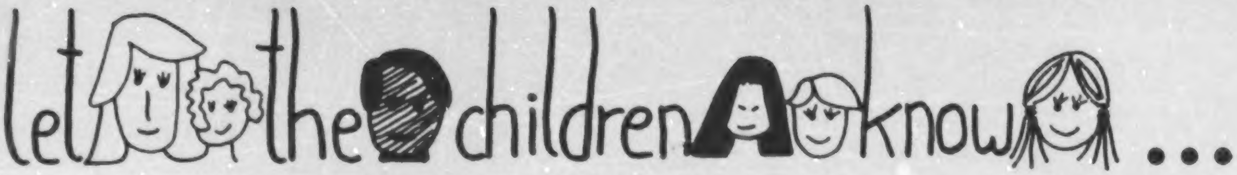
In the past, people have worried about getting enough protein when they leave meat out of the diet. Our problem in the U.S. is too much protein, not too little. People who eliminate **all** animal products from the diet, including milk, eggs, and cheese, must plan their diets more carefully to get all the nutrients they need. For those people, it is a good idea to drink soy milk with vitamin B_{12} and calcium added, and eat lots of fresh, dark green vegetables for B-vitamins, iron, and other minerals.

The Benefits of a Low Food Chain Diet

There are benefits from eating a diet that consists mainly of plant foods. (Remember that beans, nuts, and seeds are also plants.) First of all, it is a diet low in fat and protein, and high in complex carbohydrates. This diet pattern decreases the likelihood of some modern-day diseases, such as heart disease, breast cancer, colon cancer, and obesity.

Secondly, it is cheaper to buy plant foods. The most expensive food item in the budget is usually meat. Third, it is a sound practice ecologically to eat low on the food chain. In fact, most of the world's population depends almost entirely on plant foods for their daily diet. How about you?





let the children know ...

- **that beans, nuts and seeds will give them lots of energy and make them strong.**
- **that some foods are "partners" and should be eaten together.**

Super Spread

This cooking activity for children is easy to do and tastes great. The children will like it because they can be creative in choosing the ingredients.

½ cup peanut butter (Old fashioned is best)
¼ pound tofu
2 tbsp. sunflower or sesame seeds

Pick any of these:
½ banana
¼ cup raisins, chopped dates, or any dried fruit
1 tbsp. molasses, honey, or applesauce

Add peanut butter, seeds and tofu to a blender. Add any of the other ingredients that you want. Blend. Spread it on your favorite wheat bread or crackers.

For a nice variation, freeze the mixture. Then mix well to break up the ice crystals. Refreeze. Serve on a cone as "ice cream".

Adapted from: Judith Kern Cramer. **I Cooked It Myself.** Book available from: RCF, 341 Mark West Station Road, Windsor, California; 95492. $9.95. pp. 78-79. Reprinted with permission.

Getting Protein Is a Snap

Preschoolers are too young to understand the concept of "complete protein". But they can learn that some foods are "partners" and should be eaten together. The food "partners" are: 1) beans and seeds, 2) beans and grains, 3) beans, grains, seeds and milk or dairy products.

To illustrate this, the children can play a matching game. Paste food pictures on snap together toys. Color code them so that beans are on brown, grain on yellow, seeds on green, and milk on white. The children should snap brown with yellow or green, and any of the colors with white. Then have the children name the foods that they have snapped together.

It's The P-e-e-e-eanuttiest!

Peanuts play an important role in a child's diet. Some children may not know that peanuts are used to make peanut butter. Let them shell unsalted peanuts and eat them. (This may not be appropriate for the very young ones because of the possibility of choking.) Explain that peanuts make strong muscles just like meat, fish, and chicken. They also provide children with lots of energy. Let them use their energy by pretending to be monkeys.

Make your own peanut butter to show the children that foods can change form and still contain the same ingredients. To make peanut butter:

Blend 1 cup peanuts with 1½ tbsp oil in the blender until smooth. If you don't have a blender, use a food grinder for a coarser, crunchier texture.

Have the children watch the peanuts change form. Where did the peanuts go? How is peanut butter different from peanuts? Which do they like better? Why? Do monkeys at the zoo like peanuts or peanut butter better? Why? **Spread on bread or celery sticks.**

Peanut Butter Play Dough

This is even more fun than regular play dough because children can eat it, and it tastes good!

Take a big jar of **peanut butter.** Spoon out some big "globs" into a bowl. Then pour in a few spoonfuls of **honey.** Add some **powdered milk** (either instant or non-instant type). Let children mix it with their hands. Keep adding powdered milk until it makes a good dough. For chocolate flavor, you can add some **carob powder.** Mold it into any shape or roll and cut into shapes with cookie cutters. You can make designs with **raisins.**

Adapted from: Roz Ault. **Kids are Natural Cooks** (Boston: Houghton Miflin Company 1974) p. 25. Reprinted with permission from the author.

Roasting Pumpkin Seeds

Don't throw away the seeds when you are carving jack-o-lanterns. Let the children toast them for a nutritious snack. Wash the seeds in cold water. Drain and dry them on paper towels. Put them in a shallow, baking pan. Set your oven at 250° F and slowly brown them. Watch them carefully. Take them out when they are light brown. Pumpkin seeds have lots of oil. If you feel they need more, drizzle a little oil on them. Eat!

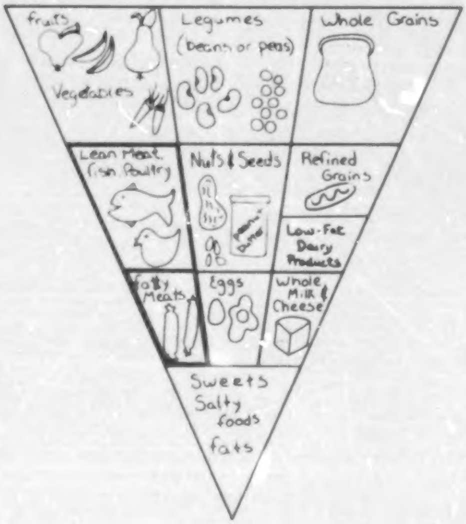
Action Story: Let's Pretend to Be a Seed

Some little seeds have parachutes to carry them around.
The wind blows them swish, swish, swish,
Then lays them gently on the ground. (Action: Standing, arms held above head, lightly sway back and forth. Move arms briskly side to side. Slowly move body to ground).

You are a flower seed in the warm, dark, wet ground.
Slowly you begin to grow.
Slowly you push out of the ground into the bright sunlight.
Slowly your stem reaches up to the sky.
Ever so slowly your leaves open to the warm sun,
Your flower buds grow and one day begin to open,
As they unfold, you become a beautiful flower of red, orange, and gold. (Action: Begin on ground, curled in a ball, arms tucked in. Then slowly unfold.)

Taken from: Alicia Hamilton. **Colorado Gold** (Boulder, Colorado, Association for Education of Young Children: 1977) pg. 31.

Foods for Balance: Meat, Poultry, Fish



Getting to the Meat of the Matter

Let's go back into history and get a taste of meat through time. Many thousands of years ago, insects were a favorite food and probably a primary protein source. In fact, prehistoric people liked the taste of insects so well that a few kinds were about wiped out. In India and Africa today, certain insects are still a delicacy. Snakes, snails, and frogs have also filled stomachs for thousands of years.

It is only in the last 10,000 years that man has raised domestic animals for food. For 4,000 years, Peruvians have raised guinea pigs for meat. The reindeer, water buffalo, and yak have all had their place in the stew pot.

Even Americans used to eat a wider variety of meat than they do now. Squirrels, rabbits, and wild birds were commonplace; and robin pie was a popular dish in the 1800's.

Today our meat favorites are beef, with pork running second, and lamb trailing a distant third. Beef consumption in the U.S. has increased from 64 pounds per person in 1960 to 96 pounds per person in 1976. Pork consumption has actually gone down from 58 pounds per person in 1910 to 54 in 1976. On the average, Americans eat 7.2 ounces of red meat each day.

The Nutrients We Get From Meat

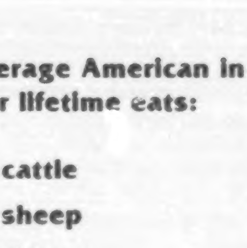
Meat contains all of the amino acids needed for complete proteins. It is a rich source of B vitamins and iron. Organ meats, such as liver, are also high in vitamin A.

Meat is our main dietary source of saturated fats and cholesterol, both of which are risk factors for heart disease. It is best to eat lean rather than high-fat meats so that we don't overdo the fat in our diet.

Generally, the fat content for meats, from highest to lowest, goes in this order: pork (highest), beef, lamb, chicken and turkey, and fish (lowest). This varies within the type of meat, depending on the cut and grade. For example, bacon from pork is almost 100% fat, whereas pork chops can be as low as 15% fat. "Prime Grade" is usually higher in fat than "Good Grade".

The average American in a 70-year lifetime eats:

14 cattle
12 sheep
2 calves
23 hogs
880 chickens
770 fish
35 turkeys



Some meats are less nutritious than others for various reasons. Bacon, for instance, has so little protein that it is classified as a fat rather than a meat. Some hot dogs and luncheon meats are high in fat, salt, and nitrates and may be made from meat scraps. Corned beef is highly salted, and commercially prepared dried beef is high in additives, making both less desirable.

The Protein Factory

Until fairly recently, cattle were raised on grassland. Because they are "ruminants" (they have a four part ruminant stomach that works wonders on grass), they have the ability to take grass plants that are undigestable to humans and convert them into protein. Feeding cattle on grassland was a great system because they could yield energy for human consumption that was otherwise unavailable.

Most cattle today are not home on the range eating grass. They are raised in feedlots eating grains which could be eaten directly by humans. This is a wasteful system. Feedlot cattle have to eat 21 pounds of grain protein in order to give us one pound of protein in meat form. This is like investing $21 for a $1 return. You can see that it is a losing proposition.

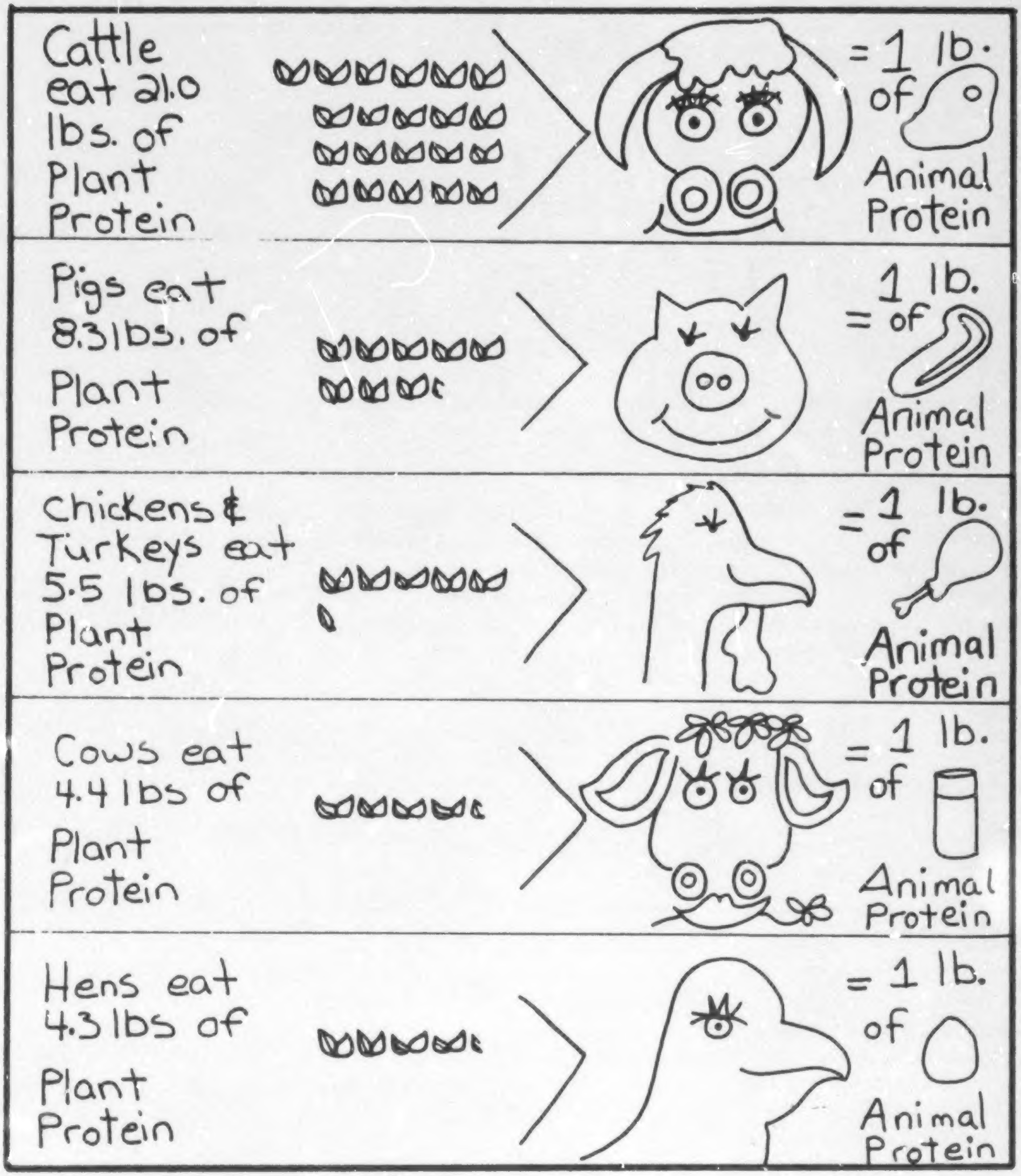
Other animals are a little more efficient. Pigs eat 8.3 pounds of plant protein to yield 1 pound of animal protein; chickens and turkeys yield a ratio of 5.5 to 1; cows (for milk) yield 4.4 to 1; and hens (for eggs) yield 4.3 to 1.

Feedlot beef is more marbled with fat than grass-fed beef. This is because there is not much to do in a feedlot except eat, so cattle add fat along with muscle. As the demand for leaner meat becomes stronger from the consumer, it is possible that meat producers will cut back on the "topping off" grain that adds fat which is nutritionally useless.

Stretching Meat for Health and Economy

There are some ways we can modify the amount of red meat we eat without feeling un-American:

- Use ground meat frequently. It can be extended with vegetables, grains, noodles, or eggs into a variety of dishes.
- Offer variety. The usual "meat and potatoes" format doesn't allow enough choices of other foods.
- Adopt the practice of serving a meatless meal once a week. This will save you considerable money in the long run.
- Serve ethnic foods. There are other cultures that cook with less of a meat emphasis than Americans. For example, serve Mexican enchiladas with cheese, beans, and rice; or stir-fry vegetables and serve over Chinese noodles or rice. Season with a can of shrimp.
- Serve cubed meat in stews and soups. The vegetables and grains absorb the meat flavor, so you get "more" for "less".
- Make use of meat bones in flavoring beans.



Cattle eat 21.0 lbs. of Plant Protein	= 1 lb. of Animal Protein
Pigs eat 8.3 lbs. of Plant Protein	= 1 lb. of Animal Protein
Chickens & Turkeys eat 5.5 lbs. of Plant Protein	= 1 lb. of Animal Protein
Cows eat 4.4 lbs of Plant Protein	= 1 lb. of Animal Protein
Hens eat 4.3 lbs of Plant Protein	= 1 lb. of Animal Protein

(= to Produce)

SPAGHETTI PIE*

6 ounces spaghetti
2 eggs
1 cup cottage cheese
½-1 cup Parmesan cheese
1 lb. hamburger
1 15ounce jar spaghetti sauce
8 ounces mozzarella cheese
onion, green pepper, mushrooms

Break spaghetti into thirds and boil. Drain and cool. Mix spaghetti with 2 slightly beaten eggs and Parmesan cheese. Pat into 10" pie pan. Layer cottage cheese onto spaghetti. Brown hamburger with onion and green pepper. Stir in tomato sauce and add mushrooms. Simmer 20 minutes. Pour into "spaghetti crust". Cover with mozzarella cheese and bake at 350 degrees for ½ hour. Let set about 10 minutes before cutting.

USDA CCFP Requirements

One ½ cup serving satisfies the meat requirement and half the bread requirement for lunch or supper. Serve with a slice of French bread.

*Recipe from Nancy Jo Kraft, Day Care Provider from Denver County, Colorado

What About Nitrates and Nitrites?

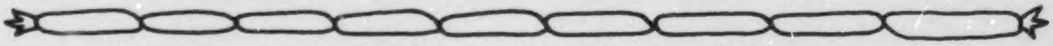
Nitrates and nitrites are substances which can be found naturally in many vegetables, like spinach and beets, in human saliva, and in our drinking water. They have also been added to meats as preservatives since the Middle Ages. In fact, nitrates and nitrites give the characteristic flavor, texture, and color to many pork products, such as ham and bacon.

The safety of adding nitrates and nitrites to our food has been argued by scientists. Their use is a question of "risk versus benefit". The benefit from adding nitrates and nitrites to foods is that they prevent botulism, an often fatal type of food poisoning. Botulism can either be controlled by the use of high temperatures, as is done in canning, or by the use of these chemicals.

The risk of these preservatives is that under certain conditions in the body, nitrites can combine with amines (the breakdown product of proteins) to form **nitrosamines.** Nitrosamines can also be formed during the cooking process. Research has shown that nitrosamines can cause cancer in laboratory animals.

Should we leave nitrates out of our diet?

As with any food additive, it is a matter of weighing the risk versus the benefit. Nitrates prevent botulism in meats, so they serve a beneficial purpose. But, on the other hand, nitrate consumptions in excess could be harmful. The safest choice is to limit the amount of nitrates in the diet which means cutting back mainly on processed meats, such as hot dogs, ham, and most sandwich meats. These meats are the least nutritious protein sources anyway because of their high salt and fat contents. Become a label reader so that you are familiar with other products containing nitrates and nitrites.



ALL BEEF HOT DOGS (Nitrate-free)*

1½	**pounds finely ground raw beef (the finer the better)**
⅛	**tsp. each ground marjoram and dry mustard**
1½	**tsp. salt**
1	**tsp. black pepper**
½	**cup dry white wine, flat beer or water**

Soak the casings (shanks) in water 2-3 hours. They can be purchased at a local meat market or gourmet shop. Combine ingredients separately and then mix them thoroughly into meat. Sauté and adjust seasoning to taste. Stuff into casing, forming 4-6" links. Fill by hand stuffing meat into the casing with a wooden spoon. (Gourmet shops do sell hot dog stuffers.) The ends may be tied by hand (like knotting a thread) or tied with a piece of thread. Unused casings may be repacked in salt to keep. To cook, simmer in water for 20-30 minutes. Recipe yields 1½ pounds.

"These are fantastic. After making them a few times, you will be stuffing the casings like a pro! And remember, there are no harmful nitrates, preservatives, or colorings."

*From: Lydia Debaca, Day Care Provider, Pueblo, Colorado

USDA CCFP Requirements

One two-ounce hot dog will yield approximately 1½ ounces of meat after boiling. This fulfills the meat requirement. Serve with potato salad.

Let's Talk Turkey (And Chicken)

Poultry has long been a bargain in good eating. It is generally cheaper than beef or pork and is sold in a variety of ways for your convenience–whole, in parts, chilled, or frozen. Chicken and turkey are good sources of high quality protein and also provide iron, thiamin, riboflavin, and niacin.

Buying and Preparing Poultry

The class name on poultry suggests the cooking method, which makes it easy to properly prepare the meat that you buy. For instance, those marked "roasting chicken" are young, tender-meated chickens with soft, pliable, smooth-textured skin. They have enough fat to brown well at a moderate roasting temperature. Large fryers can also be roasted whole. Turkeys of the "fryer-roaster," "young hen," or "tom turkey" classes have tender meat and are suitable for roasting.

Broiler or fryer chickens can be cooked on a rotisserie, in a broiler, oven-baked, or barbecued. Turkeys can also be cooked on the rotisserie, depending on their size. Hens and stewing chickens need slow cooking in a covered pan with water or steam to make them tender. Mature chickens are generally preferred for rich stews and casserole dishes because they are more flavorful than young chickens.

Get the Most for Your Money

Chicken and turkey are economical when compared to other meat sources that you might serve to your day care children. The following chart compares costs of 1½-ounce servings, which is the recommended meal portion size for a 3-6 year old child:

whole chicken	10 cents*
ground turkey	14 cents
hot dog	17 cents
ground beef	18 cents
canned tuna	23 cents

You can see that chicken and turkey are a good buy!

*Priced from Safeway Stores, Denver, Colorado, June, 1981.

The form in which you buy the meat also makes a difference in cost. For instance, whole chickens are a better buy than chicken parts. You end up paying 40-60% extra for breast, thigh, or drumstick parts. If you want the special cuts, compare prices. It might be as cheap to get the breast, thighs, and drumsticks from the whole chicken, which leaves you with the wings, backs, and giblets "free". These parts can be used for soups and stews.

Turkey parts—hindquarters, drumsticks, and wings—are usually a better buy than the whole turkey; and boneless turkey roasts cost about 35% more than the whole turkey. You end up paying a lot for convenience.

All things considered, poultry is a good food to include regularly in day care meals. Besides being nutritious, it is easy on the pocket book—and who can argue the benefits of that?

STUFFED TURKEY BUNDLES

1 cup stuffing mix
⅓ cup evaporated milk
1 lb. ground turkey
1 10 ounce can mushroom soup
2 tsp. Worcestershire sauce
1 tbsp. catsup

Prepare stuffing. Combine evaporated milk and turkey. Divide into 5 or 6 patties. Pat each into 6" circle on waxed paper. Put ¼ cup stuffing in center of each. Fold meat around stuffing and pinch to seal. Put in casserole. Mix remaining ingredients; pour over meat. Bake uncovered at 350 degrees for 45 minutes.

Recipe from Fran Sloatman, Day Care Provider from Summit County, Colorado

USDA CCFP Requirements

By dividing the recipe into 6 patties, each pattie meets the requirements for meat at lunch or supper. Serve with mashed potatoes and cranberry sauce for a real treat.

USDA CCFP Requirements

One ⅓ cup serving satisfies the meat requirement and half the fruit or vegetable requirement for lunch or supper. Serve with sliced tomatoes.

CHICKEN SALAD

2 cups chicken, cooked and cubed
2 tbsp. lemon juice. Sprinkle lemon juice on chicken and let stand several hours or overnight.

Add:

1 cup chopped celery
1 cup green seedless grapes or chopped apples
2 hard boiled eggs, peeled and chopped
¼ cup blanched almonds (optional)
½ cup mayonnaise
season to taste

Fish-A Delicate Balance

Fish is one of your best meat choices from a nutritional point of view. It has lots of protein and is lower in both calories and fat than most cuts of beef and pork. Even the "fatter fish", such as salmon, butterfish, herring, and mackerel, are only 5-16% fat, compared to choice grade steak which is 25% fat. Fish is high in vitamins and minerals. Oysters are a good source of zinc; and most fish provide iodine, copper, and other trace minerals. Canned fish, such as salmon, mackerel, and sardines, are rich in calcium and phosphorus.

Preparing Fish

Here are some hints on fish preparation:

- **Broiling:** Brush with melted butter or oil and baste several times during broiling. Broil 4 inches from the heat for 14-15 minutes or until fish flakes and breaks apart easily with a fork. Don't turn the fish unless it is very thick.
- **Baking:** Bake the fish, stuffed or unstuffed, in an oiled baking dish until the fish flakes. Brush with oil and lemon juice and baste several times as it bakes.
- **Steaming or Poaching:** Steam or simmer; do not boil. Add lemon juice or vinegar to water to firm and whiten flesh. Dry white wine, tomato juice, or milk may be added as a sauce. Season with onion, garlic, or herbs.
- **Frying:** Fry as is; or roll fish in seasoned flour, cornmeal, or wheat germ or dip in batter before frying. Fry in butter, oil, or other fat over moderate heat. Turn only once.

GENERAL RULE: Cook fish quickly and for as short a time as possible. Cooking for too long at a temperature higher than necessary ruins the texture and flavor of the fish.

Storing Fish

Fish loses flavor during storage, so use it as soon as possible after purchase. Keep in the freezing tray or meat compartment of the refrigerator. It is best if used within 2 days of purchase. To keep fish fresher longer, remove store wrapping and rewrap tightly in waxed or parchment paper. If you don't plan on eating the fish immediately, it is better to buy frozen fish than to freeze fresh fish. Do not refreeze after thawing since the quality will deteriorate rapidly. Cooking may be started before the fish is completely thawed. Thaw in the refrigerator to prevent spoilage.

BUSY DAY DINNER—TUNA / POTATO / VEGETABLES

2 baking potatoes
vegetable oil
1 clove garlic (pressed)
1½ cups sliced fresh mushrooms
½ cup diced onion
½ cup diced carrots
½ cup chopped green pepper
2 tbsp. butter
2 tbsp. flour
1 cup milk
1 tbsp. lemon juice
½ tsp. thyme
1 can (6½ oz.) tuna in water

Wash potatoes, prick with fork,and rub skins with oil. Bake at 400° 1 hour or until done. Meanwhile, sauté vegetables and garlic in 1 tbsp. butter until vegetables are tender-crisp. Add remaining 1 tbsp. butter to sauteed vegetables. Stir in flour and cook until blended. Add lemon juice and thyme and cook over low heat 5 minutes. Don't allow mixture to boil.

Drain tuna and stir into mixture.

Split potatoes lengthwise through center and spoon tuna mixture over each.

This recipe serves 2 adults or 4 children. Double the recipe as needed.

USDA CCFP Requirements

One ¾ cup serving of tuna-vegetable mixture served over ½ baked potato meets the vegetable requirements for lunch or supper. The tuna contributes approximately ½ ounce toward the meat requirement. Serve with cheese or boiled egg slices.

SOLE VEGETABLE SKILLET*

USDA CCFP Requirements

This recipe yields approximately ten 1½ ounce fish servings and ten ¼ cup vegetable servings. Serve 1½ ounces of fish with ½ cup mixed carrots and green beans to meet the lunch or supper meat and vegetable requirements.

1½ lbs. sole fillets or other fish fillets, fresh or frozen
2 tbsp. butter
1 tbsp. lemon juice
¼ tsp. dry mustard
1 cup carrots, diagonally sliced, cooked, and drained
1 package (9 oz.) frozen cut green beans, steamed
Yogurt Fish Sauce (See recipe below)

Thaw and skin fillets. Melt butter in large heavy skillet. Stir in lemon juice and mustard. Coat fish on both sides with butter mixture. Fold fillets in half in skillet. Cover skillet and cook until fish flakes easily when tested with a fork (8-10 minutes). Push fish to center of skillet. Spoon mixed hot carrots and beans around edge of skillet. Spoon a small amount of sauce over fish. Cover and heat. Makes 4 servings.

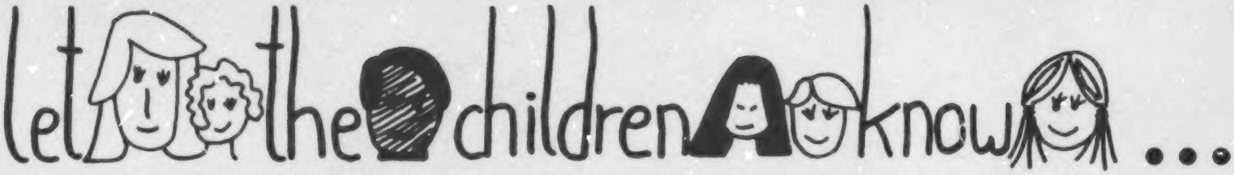
YOGURT FISH SAUCE

½ cup plain yogurt
⅓ cup mayonnaise
¼ cup green onion, sliced
2 tbsp. sweet pickle relish
½ tsp. paorika

Combine ingredients. Mix well. Makes about 1¼ cups.

"This is a creamy, tasty fish dish."

*From: Joanie Haggins. **Out of the Sugar Rut.** HAH Publications, P.O. Box 2589, Colorado Springs, Colorado 80901. Reprinted with permission of the author.



let the children know ...

- **that animals give us food to eat**
- **that meat, poultry, and fish contain protein which makes us big and strong**

Animal Parade

Here are some activities that you can do with your day care children to illustrate that meat comes from animals.

- Cut out pictures of animals that are used for meat in various places around the world, such as cattle, sheep, hogs, deer, rabbits, llamas, buffalo, moose, poultry, bears, squirrels, fish, and shellfish. Attach strings to the pictures so each child can wear one around his or her neck. Let them act out the animal they're wearing. What noise do they make? How do they move?

- Cut out pictures of meats and meat dishes. Ask each child to choose a food picture and match it to the animal which provides the food. For example, meat loaf should be matched to the picture of the cow.

- Make paper bag puppets of each child's animal choice.

- Sing "Old MacDonald" or other songs about farm animals.

Meet Mr. Meatball

Meatballs are easy to make, and ground beef is usually a favorite food for the toddler and preschooler. As any four-year-old chef will tell you, getting nice and gooey is the fun part of making meatballs.

Meatballs

1	pound of ground beef	¼	tsp. pepper
1	egg	1	saltine cracker per child
½	cup milk	½	cup chopped onions
½	tsp. salt		

Before starting the meatballs, ask the children to flex their muscles. Have them feel how big they are. Explain that meat will help us to grow and have strong muscles.

Put the ground beef in a large bowl. Notice the color of the meat before it is cooked. Give each child a cracker. Tell them to crumble it onto their plates. They should have very small pieces. Add the cracker pieces to the meat. Ask one child to crack the egg into the bowl. What animal gives us eggs? Add salt, pepper, and milk. Mix ingredients completely. Give each child enough meat to roll into two small meatballs. Fry in preheated skillet about ten minutes. Turn frequently. Compare the color of the cooked meat with the raw meat.

The meatballs can be added to a sauce and served on spaghetti. Teach the children the words to "On Top of Spaghetti" and sing to the tune of "On Top of Old Smoky".

1) On top of spaghetti, all covered with cheese. I lost my poor meatball when somebody sneezed. *(sneeze)*

2) It rolled off the table and onto the floor. And then my poor meatball, it rolled out the door.

3) It rolled in the garden and under a bush. And then my poor meatball was nothing but mush.

4) So if you eat spaghetti all covered with cheese. Hold onto your meatball and don't ever sneeze. (achoo!)

Adapted from: Mary Ann Peterson, Susan Smith. **Fun With Food** (Colorado State University Cooperative Extension Service, 15200 West Sixth Avenue, Golden, Colorado, 1978) p. 21-26.

Things Are a Little Fishy

Fish might not be as familiar to children as beef or pork. This activity provides an opportunity to examine tiny fish and talk about how good they are to eat.

Purchase ½ pound of smelt from the supermarket, fish market,or have the local butcher order it for you. Smelt is a very tiny, mild-flavored fish (about 2-3 inches long) that is frequently used as bait when fishing. One ½ pound bag usually contains about 15-20 small fish.

Let each child examine a fish. Have them feel the tail and fins. Why do fish have these? Would fish use legs if they had them? How do fish live in water? Could children live in water?

Mix a batter of 1 egg and 1 cup milk. Pour into small bowls. Place small plates of flour next to the batter. The children should dip their smelt into the batter and then roll the fish in the flour.

Cover the bottom of a frying pan with oil. Heat. Brown the fish on both sides; this will take about 10 minutes.

When the smelt are done, demonstrate how to debone them. Open the smelt at the stomach. Pull the bone from the top to the tail. These are very soft, tiny bones which can be removed intact.

Teach the children the following activity:

See the little fish swimming in the sea
(Place palms of hands together. Move them up and down as if they were riding waves.)

Wiggle, wiggle, wiggle, wiggle, wiggle, wiggle, wiggle
(Place palms of hands together. Wiggle hands back and forth.)

Let's go and catch a fish—one for you and me
(Extend arm as if fishing. Next point to a friend and self.)

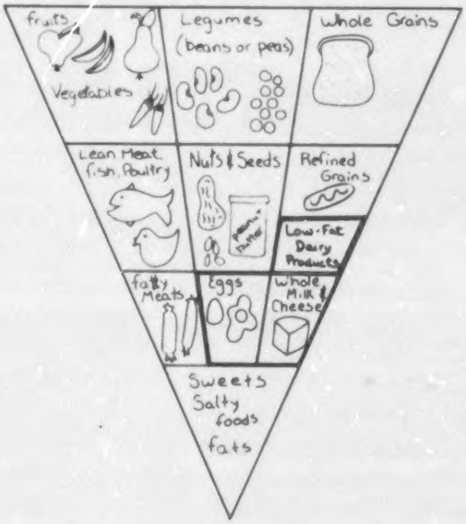
Wiggle, wiggle, wiggle, wiggle, wiggle, wiggle, wiggle
(Place palms of hands together; wiggle hands back and forth.)

They jump up and down, but they don't make many sounds
(Children jump up and down as quietly as possible.)

Wiggle, wiggle, wiggle, wiggle, wiggle, wiggle, wiggle
(Place palms of hands together and wiggle back and forth.)

Adapted from: Mary Ann Peterson, Susan Smith. **Fun With Food** (Colorado State University Cooperative Extension Service, 15200 West Sixth Avenue, Golden, Colorado, 1978) p. 23.

Foods for Balance: Milk, Cheese, Eggs



Hi Ho the Dairy Oh!

Milk is a familiar part of our diet. From early childhood, most of us can remember our moms saying, "You can't leave the table until you drink your milk." Milk is recommended for the majority of the U.S. population. Young children should have 2-3 cups of milk daily; children ages 9 through 17 need 3-4 cups each day; adults need 2 or more; pregnant women need 3 or more; and lactating mothers need 4 or more.

Some people in certain population groups, such as Blacks, American Indians, Eskimos, Orientals, and some South Pacific populations, do not tolerate milk well. There are other foods that can be eaten in place of milk that supply a similiar set of nutrients, such as soy milk, and dark, green leafy vegetables. Although yogurt and cheese are made from milk, they can sometimes be tolerated by people who can't drink milk in the liquid form.

Knowing What's What With Milk

Milk is marketed in a number of different ways. Here are some definitions of terms used for milk products.

Whole milk has had none of the butterfat (cream) removed and contains approximately 3¼% fat.
Lowfat milk is exactly the same as whole milk except lower in fat; it contains 2% fat.
Skim milk has had almost all of the fat removed and contains less than ½% fat.

Because of the difference in fat content, there is a difference in calories:

1 cup whole milk = 160 calories
1 cup 2% milk = 145 calories
1 cup skim milk = 90 calories

Other than fat, there is no difference in nutrients between whole, lowfat, or skim milk. It is recommended that anyone over age 2 drink lowfat or skim milk.

Pasteurized milk has been heated to destroy harmful bacteria. Most milk sold in the U.S. is pasteurized.
Homogenized milk has undergone a stirring process that evenly distributes the fat particles throughout the milk so they don't rise to the surface.
Raw milk is unpasteurized. In order to insure safety, the milk is checked frequently at the dairies before bottling. Raw milk is sometimes homogenized.

Buttermilk is made by adding a culture to skim milk or to the liquid remaining after butter is made.

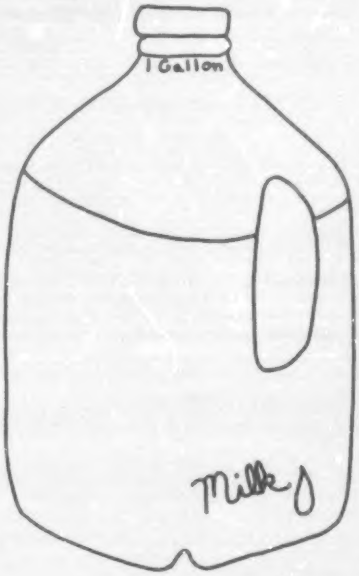
Evaporated milk is concentrated milk solids made by removing some of the water. It is then sterilized and canned.

Sweetened condensed milk is concentrated milk from which about ⅔ of the water has been removed. Sugar is then added.

Filled milk is a combination of skim milk and vegetable fat or a combination of nonfat milk solids, water, and vegetable fat. The fat is usually coconut oil, a saturated fat.

Dry skim milk is a textured, granular powdered milk. It is made by removing the water from the skim milk by spraying the milk on heated rollers.

Cream is the part of whole milk that contains the butterfat.



Common Questions About Milk

1. **Is raw milk better for you?** Some people think raw milk is better because it is higher in nutrients. However, raw milk is risky business because it could contain harmful bacteria. The heat treatment in pasteurization kills bacteria, making the milk safer to drink. Although some of the nutrients are lost in the heat process, it is better to be safe than sorry.
2. **Is buttermilk high in fat?** Buttermilk is usually low in calories and fat (about ½%). It's thickness doesn't come from butter but from the culture growth in the milk. Since buttermilk is a cultured product, it is as nutritious as yogurt at half the price.
3. **Is fresh milk more nutritious than instant dry milk or non-instant dry milk?** No. The nutrient content is almost identical. The dry milk is fortified with more vitamin A than the fresh, and animal feeding experiments show that any nutrient losses through processing are insignificant.
4. **Is it good to add extra nonfat dry milk to the baby's bottle?** No. This excess protein can have a serious, even fatal consequence on young infants. Non-fat dry milk is over 35% protein. Neither it nor any other high protein substance should be added to already adequate baby formulas.

Cheese, Please

There is a legend about how cheese was discovered. An old man was following a trade route across the desert in Arabia. He filled his "canteen" (made from a dried calf's stomach) with fresh camel's milk and began his trip. In early afternoon when he stopped to eat, he found to his surprise that the milk had changed from a liquid into curdy white substances floating in

The Milk Machine

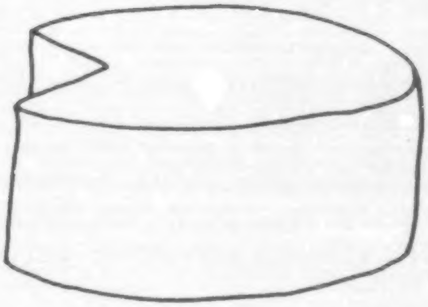
Most cows produce an average of 4,200 quarts of milk a year. But this amount is nothing to Corrine, a Holstein cow from Pennsylvania. She has set the record at 24,000 quarts in one year! This is enough milk to supply 64 families for a year. On Corrinne's best day, she milked 90 quarts. And that's no bull!

water. He was so hungry and thirsty that he tried the lumpy mixture and was delighted by the taste.

He was overheard by other travelers as saying, "Jeez, this is good stuff!" So from then on, it was called "cheese".

Cheese is made from milk, heat, and rennin, which is an enzyme that changes the liquid into a solid. Rennin is present in the stomach to help digest milk. The dried calf's stomach probably still had some rennin in it which, along with the heat, turned the milk into cheese.

There are at least 400 different cheeses around the world. The wide variety of tastes and textures depends on many different things—even the time of day the cows were milked and whether they ate grass on the north or south side of the hills affects the taste of cheese!



Although variety is the spice of life, be thankful you don't have to choose from 400 different kinds of cheese in the supermarket.

Our main choices are whether to buy processed or unprocessed cheese and whether we want regular or lowfat cheese.

Here is a glossary of common cheeses.

Natural cheese means that it is not blended with other foods or modified. It does not mean that the cheese contains no added color, salt, or other additives.

Pasteurized process cheese is made by blending and heating one or more kinds of ground natural cheese with additional food additives and flavorings. The cheese does not age any further after processing because heat is used to "fix" the flavor.

Process cheese food has milk, milk solids, cheese whey, or whey albumin added. It has more water but less protein and fat than process cheese.

Process cheese spread has more water (up to 60%) and less fat (approximately 20%). The protein content is 35% less than in processed cheese.

Natural cheese is a better buy than the processed cheeses because of the higher protein content. But process cheese is a good buy for the calorie-conscious because it is lower in fat. The problem with processed cheese is that it is more likely to have additional, unwanted food additives. Cheese spreads in a can are usually more expensive, contain more additives, and have fewer nutrients, making them a bad buy all the way around.

Per Cent Fat In Cheese

★ **Cottage cheese**	**4%**
★ **Ricotta, part skim or whole**	**8-16%**
★ **Mozzarella, part skim**	**17%**
★ **Camembert, Swiss process, Mozzarella**	**20-26%**
★ **Provolone, Swiss, American, Edam, Blue**	**27-29%**
★ **Muenster, Colby, Cheddar**	**30-33%**
★ **Cream cheese**	**36%**

Cottage cheese is low in fat, high in protein, and less expensive than either the natural or processed cheeses. It is an excellent meat alternate, but it is not adequate as a substitute for milk because calcium and some other nutrients are drained off in the whey.

CHILLAQUILLAS*

- **1 dozen tortillas**
- **½ pound jack cheese (2½ cups grated)**
- **1½ cups tomato sauce**
- **1½ cups low-fat cottage cheese**
- **½ cup chopped green onions, with tops**
- **2 tsp. chili powder**
- **½ tsp. crushed oregano**
- **¼ cup oil**
- **1 tsp. salt**

Tear tortillas into pieces 2" square. Sauté onions in oil in heavy 10" or 12" skillet until soft. Add chili powder, oregano, and tortilla pieces. Stir frequently until tortilla pieces are soft and lightly coated with oil. Blend cottage cheese with tomato sauce. When smooth, pour over tortillas, sprinkle with salt, and top with grated cheese. Cover the skillet and heat through until cheese melts and sauce is bubbly. Serves 6-8.

USDA CCFP Requirements

By dividing the recipe into 12 wedges or servings, one serving will meet both the bread and meat alternate requirements for snack, lunch, or supper.

*Reprinted by permission from **Laurel's Kitchen: A Handbook for Vegetarian Cookery and Nutrition** by Laurel Robertson, Carol Flinders, and Bronwen Godfrey. Copyright 1976 by Nilgiri Press, Petaluma, California 94953.

CHEESE SPOONBREAD*

- **½ cup butter, melted**
- **2¾ cup cornmeal**
- **½ tsp. salt**
- **1½ tsp. baking soda**
- **4 eggs, beaten**
- **2 cups buttermilk, yogurt, or sour milk**
- **4 oz. Swiss cheese, grated**
- **1 can (8 oz.) whole kernel corn, drained**
- **1 can (8 oz.) creamed style corn**

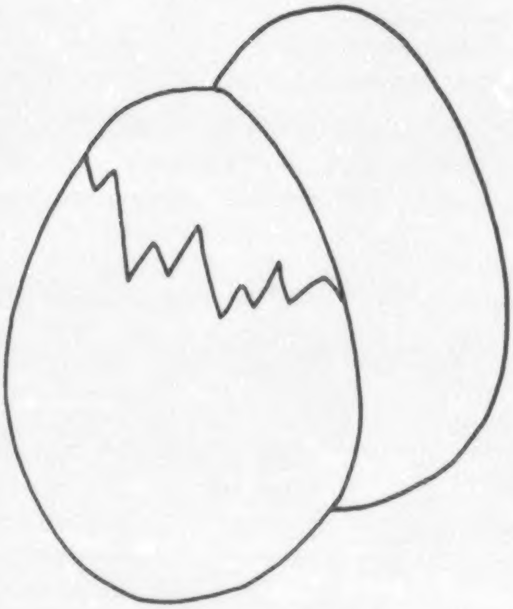
Preheat oven to 375°. Mix cornmeal, salt, and baking soda in a bowl; set aside. Beat eggs well; add buttermilk and melted butter. Stir the buttermilk mixture into cornmeal mixture. Do not overmix. Stir in creamed style corn and whole kernel corn. Bake for 30 minutes in 375° oven. Sprinkle cheese on top and bake 10 minutes longer. Serves 6.

"Most children really like cornbread. It will disappear quickly!"

USDA CCFP Requirements

By dividing the recipe into 12 servings, each serving meets the requirements for both meat alternate and bread for snack.

*From: Joanie Huggins. **Out of the Sugar Rut.** HAH Publications, P.O. Box 2589, Colorado Springs, Colorado 80901. Reprinted with permission of the author.



The Versatile Egg

You've all heard about the cholesterol controversy and eggs. An egg is one of the highest dietary sources of cholesterol, and the amount of cholesterol in our blood stream may determine whether or not we get heart disease. So, should we eat eggs?

As with most nutrition questions, the answer is neither black nor white, and it is different for young children and adults.

Eggs are an excellent food. They are an almost perfect match to the types of protein we need for strong muscles. Egg yolk is a good source of iron for infants, and it is easy to digest. It is also the part of the egg that contains the cholesterol. Since cholesterol is needed to form new brain cells, it is thought that some cholesterol in early infancy is beneficial rather than harmful. After children are 1 year of age, they can digest both the yolk and the white of the eggs, which is a good protein source. For infants and young children, eggs are a great food that are readily acceptable by them.

Adults, on the other hand, may need to limit their egg consumption to two or three times a week. The old farmer's breakfast of 3 eggs, bacon, biscuits, and gravy was great for old farmers who worked a 12-hour day of hard physical labor. But since our work habits have changed and heart disease has become more prevalent, it is best to take a preventive stance. So enjoy your eggs without overdoing a good thing.

40 years ago an average hen laid 100 eggs a year. Now the average hen lays 240 eggs a year. Maybe they're getting higher wages.

Eggs Are All They're Cracked Up to Be

Few of today's convenience foods can compete with eggs for packaging, low price, versatility, and flavor. Although they have been stereotyped as a breakfast food, eggs can be served and enjoyed at any meal in any shape or form. Try them in quiche, souffles, scrambled with chopped meat, in egg-drop soup, in Baked Alaska, egg sandwiches, custard, deviled eggs, egg foo yung, angel food cake, and lemon meringue pie.

DILLY EGGS (over Whole Wheat English Muffins)*

USDA CCFP Requirements

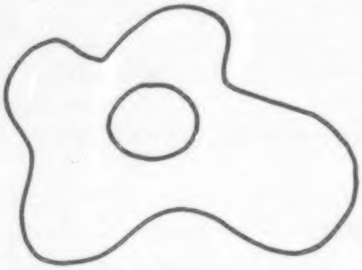
One ½ cup serving meets the meat alternate requirement for lunch and supper. One ¼ cup serving meets the requirement for snacktime.

1 tbsp. butter
½ tbsp. cornstarch
½ cup milk
½ cup water
5 hard cooked eggs
pepper, paprika, dill

Melt butter over low heat. Stir in cornstarch to form a smooth paste. Add milk and water, stirring until smooth, and cook until mixture thickens and begins to boil, stirring occasionally. Remove from heat and add peeled and diced eggs. Season with dill, pepper, and paprika and return to heat until heated through. Serve on whole wheat English muffins. Makes 4 servings.

"The children will love this for breakfast, lunch, or as a light supper. Serve a fresh fruit salad with it."

*From: Joanie Huggins. **Out of the Sugar Rut.** HAH Publications, P.O. Box 2589, Colorado Springs, Colorado 80901. Reprinted with permission of the author.



let the children know . . .

- **that milk helps them grow and makes their bones and teeth strong**
- **that eggs are good for them to eat**

Mighty Milk

Here is a song about milk that is sung to the tune of "Farmer in the Dell".

First verse: The farmer milks the cow; the farmer milks the cow. Hi Ho the Dairy Oh! The farmer milks the cow.

Additional verses:

The truck takes the milk.
The factory bottles the milk.
To the grocery store it will go.
We all drink the milk.
Milk will make you strong.

Reprinted from: Mary T. Goodwin, Gerry Pollen, **Creative Food Experiences for Children**, which is available from Center for Science in the Public Interest, 1755 S. Street, N.W., Washington, D.C. 20009, for $5.95, Copyright 1980.

Milk Makes Strong Bones

Clean a chicken bone and have the children feel how hard it is. Let them feel their own bones in their fingers and arms. What do bones do? They make a framework for our body. That's why they have to be strong.

Soak the chicken bone in vinegar for several days. Explain that vinegar will take the calcium out of the bone, and it won't be strong anymore.

After a few days, feel the bone. It should bend easily. That's what happens when the calcium is gone.

Milk has calcium in it. That's why when we drink milk our bones get strong.

The Little Cooks

Here is a finger play about cooking and eating an egg.

This one bought an egg. *(little finger)*
This one turned on the fire. *(ring finger)*
This one cracked it open. *(middle finger)*
This one cooked it. *(index finger)*
And this fat rascal ate it all up! *(thumb)*

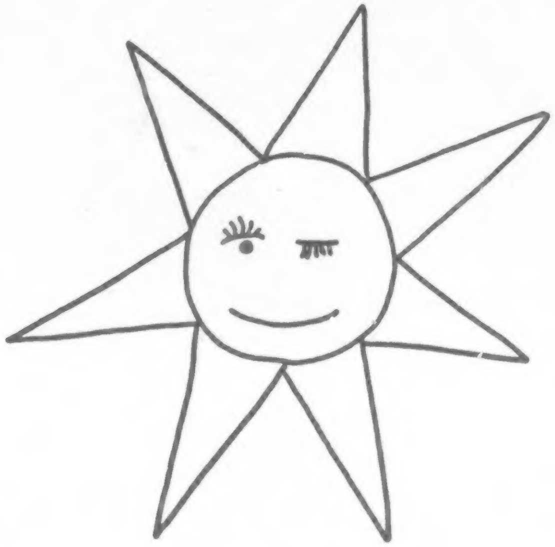
Scrambled Surprises

Scrambled eggs are a favorite with children. Here are some ways to make scrambled eggs an **event** rather than just a meal.

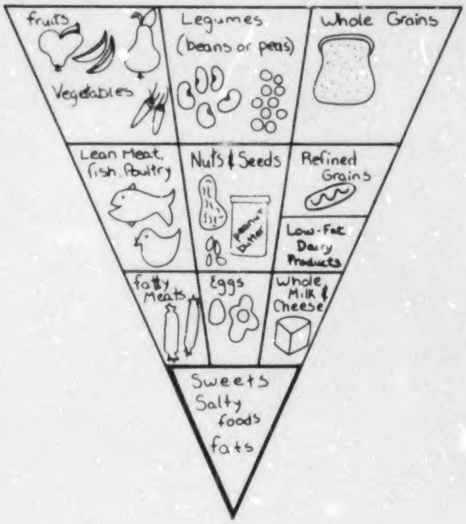
- Read Dr. Seuss' book, **Scrambled Eggs Super,** before fixing the eggs.
- Save the egg shells for a later activity by making a small hole in the top and bottom and blowing the egg out.
- Have each child put his or her egg into a small bowl or paper cup. Pour a spoonful of milk in with the egg and stir.
- Now let the children choose what they want to add to their egg. Here are some possibilities:
  Cheese—any kind, cut up or grated, or cottage cheese
  Vegetables—onions, carrots, tomatoes, peppers, or cooked leftover vegetables, cut up
  Sprouts—bean, wheat, alfalfa, etc.
  Herbs and Spices—basil, parsley, oregano, paprika, or whatever
  Anything Else—sesame seeds, fresh pineapple, leftover rice, etc.

Each person can make his own combination of "stuff". Two or three things are usually enough. Melt a little butter in a large frying pan. You can usually cook two or three batches at once if you let them harden a little when you first pour them in the pan.

Adapted from: **Kids Are Natural Cooks.** Rachael Uraneck and Roz Ault. Copyright 1973 by Rosalie Ault and Rachael E. Uraneck. Reprinted by permission of Houghton Mifflin, Co.



Foods For Moderation: Fats



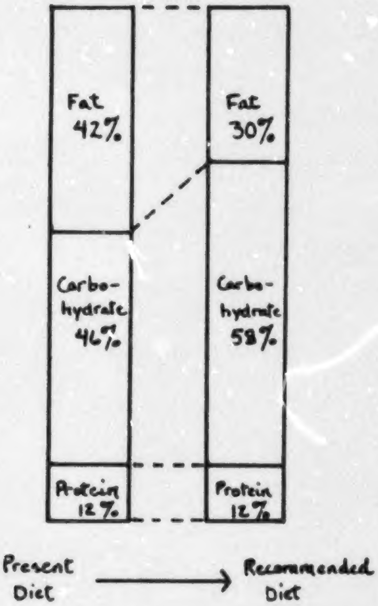
Jack Sprat Could Eat No Fat . . . Lucky Guy!

The old time trappers of the Hudson Bay Company and arctic explorers talked about "rabbit starvation" which was most common among rabbit hunters and explorers who lived on lean caribou. It was starvation that resulted from not having enough fat in the diet. This was uncommon among the Eskimos because they packed white whale oil, seal oil, or polar bear fat with them. In a cold climate like the Arctic, dietary fat provides a compact and rich calorie source that is converted into body fat for insulation, heat, and energy. So the next time you're in the Arctic, don't forget your bag of whale oil.

In the meantime, few of us have to worry about fat deficiency. Granted, fat is an essential part of the diet. But until the next Ice Age hits the U.S., our problem is one of too much, not too little.

How Much Is Too Much?

On the average, Americans get 42% of their calories from fat. That leaves 12% from protein and 46% from carbohydrates. This is too much fat for a healthy diet. Nutritionists recommend decreasing the fat to 30% and increasing complex carbohydrates to 58%.



To give you an idea of what these percentages mean in real food, here are some examples.

	FOOD	PERCENTAGE OF CALORIES FROM FAT*
BREAKFAST:	shredded wheat whole milk orange juice	18%
	with lowfat milk	15%
	with skim milk	7%
	with half and half	44%
BREAKFAST:	bacon eggs toast with ¼ tsp. margarine	55%
LUNCH:	peanut butter sandwich whole milk apple	48%
	with skim milk	34%
LUNCH:	cheese sandwich whole milk apple	44%
	with skim milk	38%
DINNER:	hamburger stroganoff with sour cream	44%
	with lowfat yogurt	30%

*Taken from: Helen Black. **The Berkley Co-op Food Book: Eat Better and Spend less.** Bull Publishing Company. P.O. Box 208, Palo Alto, California 94302. Copyright 1980. Reprinted with permission.

Trimming the Fat from the Menu

As an illustration of how we can reduce the fat in our diets, compare these menus:

A Common High-Fat Meal	Grams of Fat	Skimmed-down Meal	Grams of Fat
6 oz. Sirloin steak	20	6 oz. Broiled fish with lemon	11
Tossed salad with French dressing	6	Tossed salad with vinegar	—
Green peas with 1 pat margarine	4	Green peas with lemon, basil or marjoram	—
Baked potato with 2 pats margarine	8	Baked potato with 1 pat margarine	4
Roll with 1 pat margarine	6	Roll with ½ pat margarine	4
1 cup whole milk	8	1 cup skim milk	—
Apple pie with ice cream	25	Cantaloupe	—
Coffee with cream	2	Coffee, black	—
Total	79	Total	19

The fat content of the meal on the right is reduced by 75% and the calories by 805. You may not want to trim your diet so drastically right away, but you can see that there is ample opportunity to do so. It is well worth the effort, not only to avoid the greasy residue on last night's dishes but to allow yourself an overall better diet. Replacing fatty foods with wholesome carbohydrates (whole grains, fruits, and vegetables) means fewer calories and more vitamins and minerals.

Even More Ways to Trim the Fat

By making a few cutbacks, substitutions, and a few changes in cooking methods, you can decrease fat intake considerably.

Cut back on:

- butter or margarine on toast
- cream in coffee
- bacon and sausage at breakfast
- dressing on salads
- mayonnaise on sandwiches
- "hidden fats" in doughnuts, chocolate, potato chips

Substitute:

- ice milk for ice cream
- yogurt for sour cream and cream cheese in dips
- lowfat milk gravies for cheese sauces
- skim or lowfat milk for whole milk (Serve whole milk to children under 2 years of age)
- lowfat meats (poultry and fish) for high fat meats (beef and pork)
- lowfat cheese for regular or cream cheese

Cooking Methods:

- bake, steam, boil, or broil, rather than fry
- trim fat from meats; strip skin off chicken before cooking
- broil meats so fat drips out in cooking
- use a non-stick skillet for fat-free frying and sautéing
- avoid cooking vegetables with the meat (they're notorious fat sponges)
- drain fat from browned ground beef in colander or on paper towels
- refrigerate soup stock, stews, meat drippings and remove the hardened surface fat before rewarming

BETTER BUTTER* — The Best of All Worlds

This is a simple way to make a margarine-like spread that combines the nutrients of vegetable oils with the vitamins and calcium from butter. It is better than butter because it is lower in cholesterol but still has the same taste. An unpredicted charm of Better Butter is the fact that you use less because it spreads so easily.

1 cup safflower, soy, or corn oil
1 cup butter (2 sticks)
2 tbsp. water
2 tbsp. dried skim milk
½ tsp. salt (optional)

Use soft, unmelted butter. Blend the equal parts of oil and butter, water, milk, and salt. Pour into margarine tubs, cover, and store in the refrigerator. It's as simple as that!

*Reprinted by permission from **Laurel's Kitchen: A Handbook for Vegetarian Cookery and Nutrition** by Laurel Robertson, Carol Flinders, and Bronwen Godfrey. Copyright 1976 by Nilgiri Press, Petaluma, California 94953.

LOWFAT—SUGARLESS CHEESECAKE*

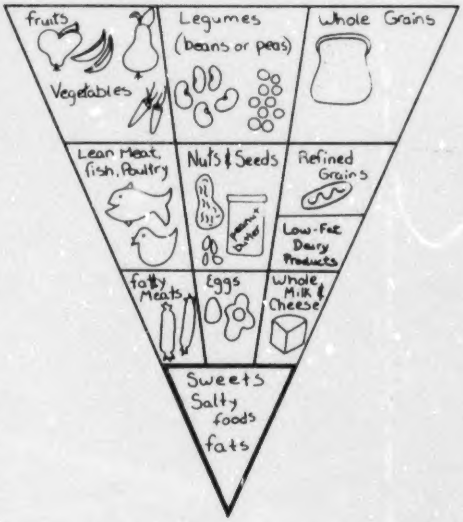
1 cup yogurt
1 cup cottage cheese
2 tbsp. honey
1 tsp. vanilla
2 eggs
¼ cup whole wheat flour
2 ripe bananas
½ tsp. salt
1 tsp. orange rind
1 tsp. lemon rind

Combine all ingredients. Pour into a 9 inch pie plate which has been greased and dusted with wheat germ. Bake at 350° for 25 to 30 minutes. Chill and top with your favorite fresh fruit.

*Recipe from JoAnn McRobbie, Day Care Provider in Mesa County, Colorado.

Foods For Moderation: Sweets

The Sweet Life



Everyone likes a "sweet" life. The people who are dear to us are called "honey-pie", "sweetie", or "sugar dumpling". When someone wants to give a special gift, it's a box of chewy chocolates or mints. We go out for a coke after the game or ice cream after dinner. Our love of sweets is no different from any other culture around the world. The problem is that sweets are so readily available.

About one-fifth of our daily calories comes from sugar or corn sweeteners which averages about **36 teaspoons** of sugar each day. Of course, none of us would spoon out 36 teaspoons of "white gold" from the sugar bowl. The majority of it comes already added to the convenience foods and desserts that we gobble and guzzle. Our largest sugar consumption, which comes from soft drinks,has more than doubled in the past 15 years. Today, the average American drinks about 330 12-ounce cans of soda each year, which is almost a one-a-day dose.

What's Wrong with Sugar?

Just as with any nutrient, there is nothing wrong with sugar in small amounts. Unfortunately, 36 teaspoons per day is not a small amount! Here are some reasons why it is a good idea to cut back on sugar.

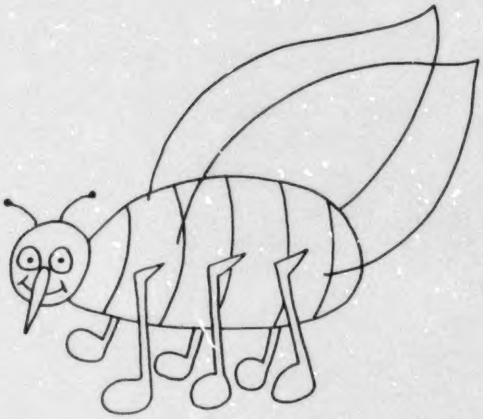
Sugar and tooth decay are one of our biggest concerns, particularly with children. Tooth decay is caused by acid from bacteria feeding on both complex and simple sugars in the mouth. The longer the carbohydrate is on the teeth, the more likely the tooth decay. Sticky candies, dried fruit that sticks to the teeth, and constant sipping on soft drinks are prime activators of tooth decay.

Excess sugar is stored as fat. And we all know it is easy to overeat highly sugared foods or sip the day away with a soda. Obesity is seen in more than 10% of our school age children, in 15% of the people under age 30, and in 25-30% of the adult U.S. population. Our country is expanding! Granted, obesity also results from too little exercise and too many calories from all sources. But sugar takes its toll, none the less.

Sugar intake has been associated with heart disease. Some people who eat large amounts of sugar have high fat levels in the blood. If this is accompanied by obesity, a high fat diet, and decreased exercise, these people might be on the road to problems. You must remember to be good to your heart, or it will attack you.

Diabetes is another sugar-related disease. It appears that as countries switch from a high complex carbohydrate diet to a high refined sugar diet (which is what we have in the U.S.), more cases of adult diabetes crop up. Obesity is a major factor that contributes to diabetes in adulthood. Cutting back on sugar is one way to prevent obesity.

Many parents and day care providers report that sugar makes their children hyperactive. We frequently hear that children are just "better" children when they don't eat lots of sweets. They respond more positively to discipline, and they play and sleep better. There is no direct evidence to explain why this may be so. But if you find this to be true, then you should definitely limit the amount of sugar your children eat.



Do Bees Have the Answer?

Bees work so hard for us that it isn't easy to say anything bad about honey. It takes 160,000 honey bees to make one pound of honey. Eighty thousand bees are needed to bring the nectar to the hive, and another 80,000 bees wave their wings to evaporate the nectar for one pound of honey. Thank goodness they don't ask for a minimum wage!

Many people are asking, "Is honey better to eat than sugar?" Unhappily, the answer is no. Sugar is sugar, give or take a few stray bees' feet.

1 teaspoon honey - 22 calories
1 teaspoon sugar - 13 calories

From the following chart, you can see that honey has only a trace of additional nutrients when compared to white sugar. Molasses has the most nutrients of all the refined sweeteners in the chart, but it should not be eaten in excess because it is a sticky substance that can cause tooth decay.

Sugars, Honey, and Molasses Compared (Approximately ½ Cup)*

	White Sugar (Granulated) mg.	**Brown Sugar** (Beet or Cane) mg.	**Molasses** (Third Extraction Blackstrap) mg.	**Honey** (Strained or Extracted) mg.	**Maple Sugar** mg.
Minerals					
Calcium	—	85	1122	8.5	164
Phosphorus	—	19	138	10	12
Iron	0.1	3.4	26.4	.85	1.6
Sodium	1.0	30	157.5	8.5	16
Potassium	3.0	344	4800.5	86.5	276
Vitamins					
Thiamine	—	0.1	.18	.01	—
Riboflavin	—	0.03	.31	.07	—
Niacin	—	0.2	3.3	.5	—

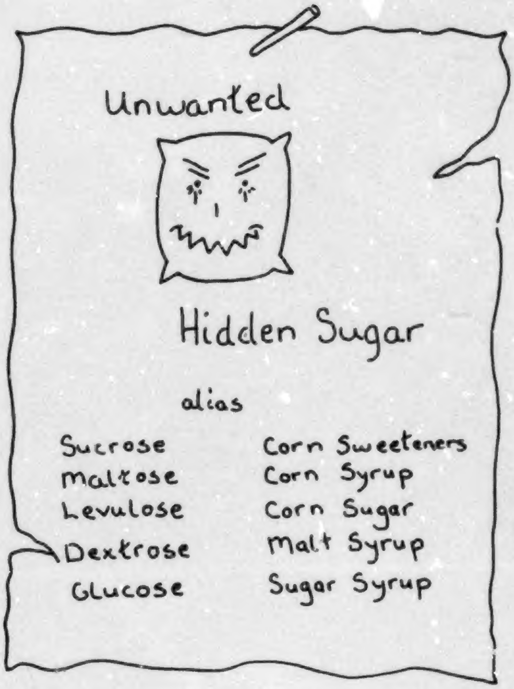
*From Agricultural Handbook No. 456, USDA, November, 1975.

It is important to note that **unpasteurized honey should not be given to infants less than one year of age.** Without pasteurization, there is a risk of botulism which can cause severe diarrhea or even death.

It is best to kick the habit of **any** sweetener and shift the taste buds to fresh fruits and juices.

Reducing the Use of Sugar

Tips for reducing the use of sugar:



- For sweetening, add raisins, fresh fruits, or canned fruits packed in their own juice to unsweetened ready-to-eat cereals.
- Avoid frosted or sugar-coated cereals.
- When cooking whole grain, unsweetened cereals, add dried fruits for flavor as well as sweetness.
- Purchase fruits canned in their own juices or unsweetened liquid. If you can't find unsweetened fruit, rinse the canned fruit in cold water before eating.
- When freezing fruits, reduce the amounts of sugar per quart or pint of fruit. Fully ripe fruits are naturally sweet and require little or NO added sugar.
- When canning fruits, use light corn syrup or just pack them in water.
- Use fresh fruits, such as apricots and peaches, for delicious toppings, instead of syrups.
- Use canned or frozen fruit juices singularly, or in flavorful combinations, instead of sweet bottled drinks.
- Make your own applesauce without sugar. Add a few raisins for additional sweetness.
- Eat fresh fruit in season. Sugar does not need to be added to bring out their delicious flavor.

GELATIN SNACKS

3 envelopes unflavored gelatin
½ cup cold water
1½ cups unsweetened fruit juice (i.e.,grape, orange, pineapple)

Sprinkle gelatin over cold water. Heat juice over low heat. Add gelatin, stirring constantly until well dissolved. Pour into 9" square pan so that depth of liquid is about ½". Chill thoroughly. Drained, chopped fruits or vegetables may be added before chilling. Cut out desired shapes with metal cookie cutters, pressing down firmly on the gelatin.

USDA CCFP Requirements

By dividing the recipe into 6 servings, one 4½" x 3" serving will yield 2 ounces of fruit juice. Supplement with fruit slices to meet the fruit requirement at snacktime.

NO SUGAR APPLE PIE

1 12 oz. can frozen apple juice
3 tbsp. cornstarch
1 tsp. cinnamon
5 large sweet apples (such as Golden Delicious), peeled and sliced
dash of nutmeg
dash of clove

Combine juice, cornstarch, and cinnamon. Heat until thickened. Add sliced apples and simmer until partially cooked. Pour into unbaked pie shell and cover. Bake at 350 degrees for 45 minutes.

USDA CCFP Requirements

One-eighth of a pie meets the fruit requirement for snack. Serve with a glass of milk.

Foods for Moderation: Salty Foods

Salt—Season with Care

Everyone requires salt in the diet—but not nearly as much as the average American consumes daily. We eat between 6 to 16 grams of salt each day but need only 2 to 3 grams to stay healthly. (One teaspoon contains 5 grams.) Second to sugar, table salt is America's favorite food additive.

What's Wrong With Salt?

There's nothing wrong with a little bit of salt. We need a certain amount of salt in our diet each day to maintain water balance in our body. Too much salt, on the other hand, contributes to high blood pressure, a major risk factor for heart disease and stroke.

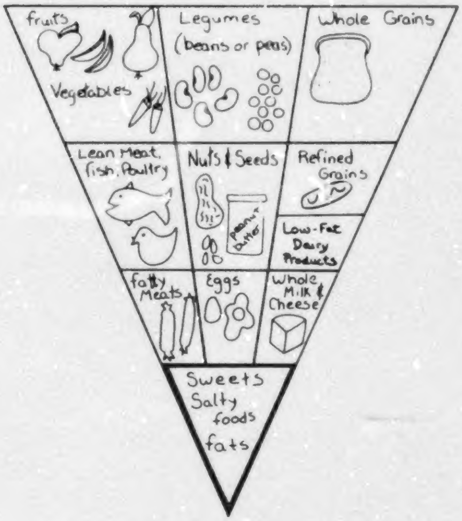
High blood pressure is a disease that is becoming more and more common in the U.S. One out of every five Americans will develop high blood pressure by the time they reach retirement age. Frequently, it is called a "silent" disease because there are very few indicators that the blood pressure is high until other complicating factors begin to emerge. Although the cause is not really known, there are two factors that are strongly associated with high blood pressure—salt intake and obesity.

Is Too Much Salt Bad For Children?

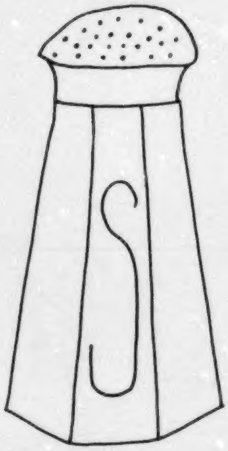
It is rare for a child to have high blood pressure or heart disease, but the unhealthy food habits that may lead to these diseases begin at an early age. The more salt people eat, the more they seem to like salty foods. This habit may begin as early as infancy if salty foods are fed to babies. It is best to nip the salt habit in the bud by cutting back on the salt we feed ourselves and our day care children.

What Are the Sources of Salt in the Diet?

Sodium is the component of salt that causes health problems. Table salt is about 40% sodium. Sodium is also present in other foods and additives. It is present in seasonings, such as monosodium glutamate, seasoning salts, meat tenderizers, soy sauce, and other condiments. Most of the sodium we eat is placed in our foods by food processors. It is important to read food labels and recognize the food additives that contain sodium.



The giraffe's blood pressure is 2 to 3 times that of a healthy man and may be the highest of any animal in the world. Because the giraffe has such a long neck, 10-12 feet, its heart needs tremendous force to pump blood to the brain wa-a-a-y up there! The giraffe's heart is huge; it weighs 25 pounds, is 2 feet long, and has walls up to 3 inches thick.



ADDITIVES THAT CONTAIN SODIUM

salt
soy sauce
monosodium glutamate
seasoning salts
sodium nitrate
sodium benzoate
disodium phosphate
sodium propionate
disodium EDTA
sodium carbonate
baking soda
baking salt
sodium gluconate
sodium citrate
sodium alginate

What Foods Are High in Sodium?

The following foods have a moderate to high amount of salt added to them. You might be thinking to yourself, "But I thought that canned vegetables, tomato juice, or cheese were good foods to eat!" They are. But they do have salt added. Some of the foods on the list are much higher in salt than others, such as pickles, olives, cured meats, salted nuts, and chips. The key is moderation. Don't overdo the salty foods.

CONDIMENTS*

Table salt, sea salt
Celery, onion, and garlic salts
Seasoning salt
Meat tenderizers, monosodium glutamate
Soy, steak, and Worcestershire sauces
Relishes
Pickles
Olives
Prepared mustard
Catsup
Barbecue or chili sauce
Tartar sauce

MISCELLANEOUS

Sauerkraut
Canned vegetables
Tomato juice
Canned or dehydrated soups
T.V. Dinners
Canned or frozen mixed dishes
Bouillon or canned meat stock
Cake, pies, quick breads
Bacon fat
Salt pork
Salted snack foods, pretzels, chips, etc.
Salted crackers

PROTEIN FOODS

Ham
Hot dogs
Sausage and bacon
Bologna, other luncheon meats
Canned or potted meat
Anchovies
Natural cheeses
Processed cheeses
Dried or chipped meat
Smoked meat or fish
Salted nuts

Processed Foods Have More Salt

Food processors don't skimp on the salt. Compare foods from the chart below and notice the difference between your home cooked vegetable stew and canned stew. The more you can make use of fresh or frozen foods, the less salt you'll get in your diet.

FOOD*	Mg. Sodium	Approximate teaspoons of salt
Fresh cucumber—1 large	10	—
Dill pickle—1 large	1930	1 teaspoon
Beef and vegetable stew, 1 cup—home recipe (no salt added)	90	—
canned	1005	½ teaspoon
Peanuts, 1 cup— from shell, unsalted	10	—
canned, salted	600	¼ teaspoon
Green beans, 1 cup—fresh or frozen	5	—
canned	320	⅛ teaspoon
Chicken, 1 cup—roasted	90	—
canned	1080	½ teaspoon
Apple	1	—
Apple pie— ⅙ of 9" pie	480	¼ teaspoon
Oatmeal, ¾ cup.—regular or Quick	1	—
instant	250	⅛ teaspoon

*Taken from: **The Way We Eat.** Office of Nutrition Service, Rhode Island Department of Health, Room 103 Cannon Building, 75 Davis Street, Providence, R.I. 02908

Add a Little Spice to Your Life

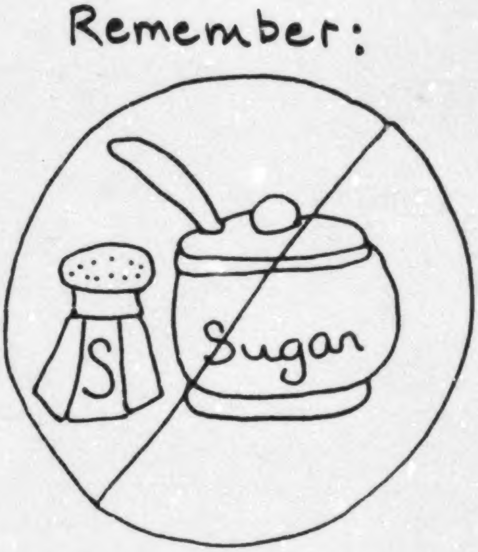
No salt shaker on the table? There are some ways to prevent "taste bud rebellion". Use herbs and spices for seasonings instead of salt.

In using herbs:

- Fresh herbs add most flavor. Try growing them indoors all year long. Herbs grow "like weeds" so they are easy to care for.
- Add herbs to soups and stews about 30 minutes before serving. If added earlier, the flavors will cook out.
- Add herbs to cold foods, such as salad dressing, tomato juice, or cottage cheese, 24 hours before serving to give the herbs time to blend.
- Dried herbs lose their flavor if stored near a warm stove. Keep them in a cool, dry cupboard.
- These herb combinations are fail-safe:
  oregano and marjoram,
  tarragon and chives,
  thyme and parsley,
  mint and marjoram,
  oregano and rosemary,
  sage, savory, and parsley.

In using spices:

- Add **ground** spices to short-cooking dishes at the beginning of preparation, to long-cooking dishes at the end of the cooking period, and to cold dishes several hours before serving.
- Add **whole** spices to long-cooking dishes at the beginning of the cooking period. Pulverize or crumble to release flavor.



let the children know ...

• that foods with lots of fat, sugar, or salt are not good for us.

Special Treats Don't Have To Be Sweets

It is easy to fall into a pattern of giving children candy or "junk food" as a reward for good behavior. Even a comment as innocent as, "You can't have dessert until you've eaten your vegetables," teaches children that dessert (sweets) is their reward for doing something unpleasant (eating vegetables). What we really want to teach them is to like vegetables and not rely on sweets.

Anything can be a treat. It doesn't necessarily have to be food. Children can be rewarded with a hug, a special activity, or additional attention from you, such as letting them help you with one of your day care chores.

If you do offer food as an occasional treat, make it something nutritious. One of the best ways to be successful at this is not to have any "junk foods" or candy on hand. Then you will be comforted in knowing that whatever treat they choose will be good for them. Here are some examples of healthful food treats:

- raisins, dried apricots, or other dried fruit
- a small piece of fresh fruit
- a few cashews, pecans, or walnuts (for the older children)
- a piece of cheese

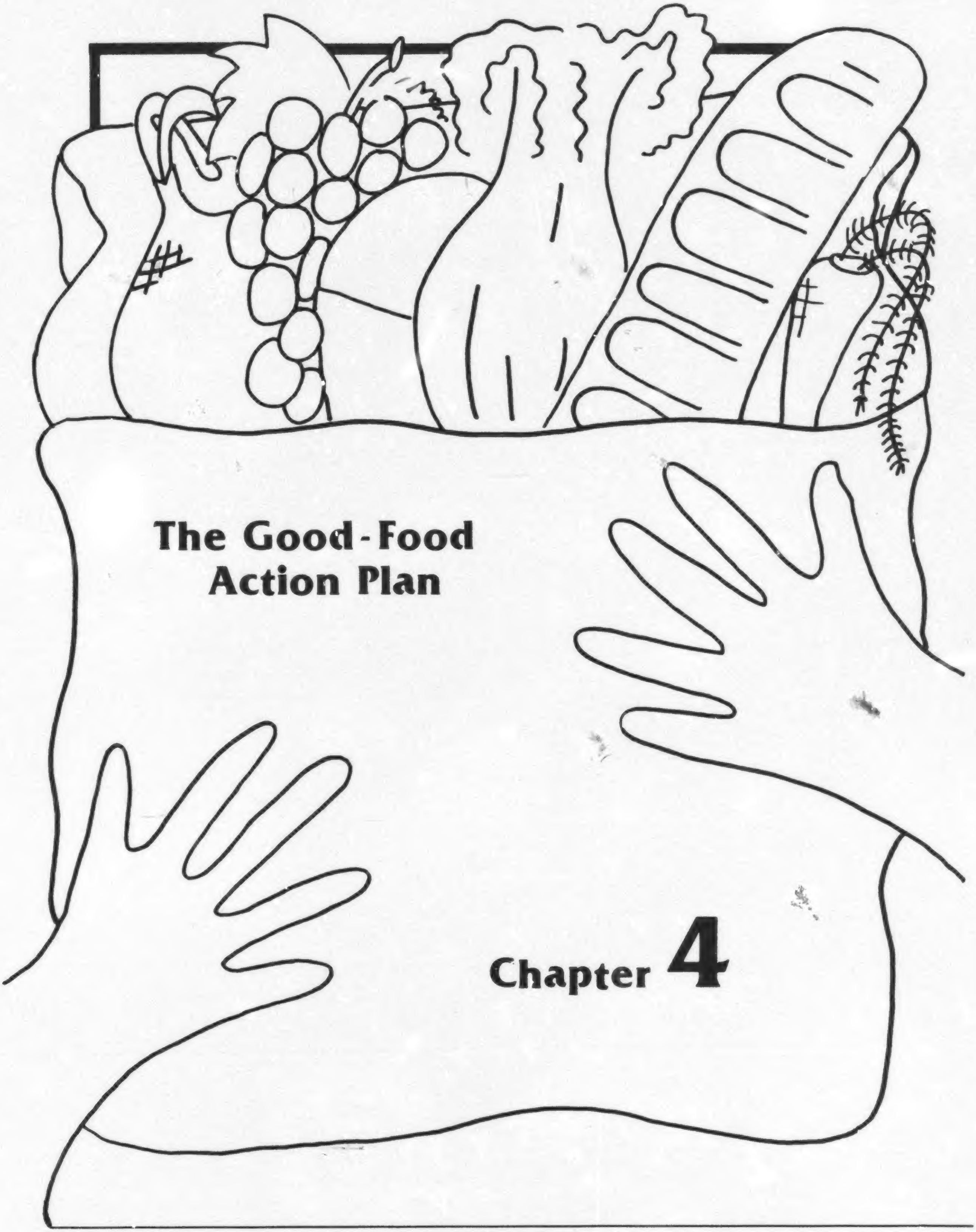
Sugar-Free Birthday Parties

Birthday parties don't have to be cake, ice cream, candy, and chips. Here are some party ideas that de-emphasize dessert.

- Center the day around an excursion, such as a trip to the zoo, swimming, or roller skating. For the little ones, have a special picnic in the backyard.
- For parties at home, plan a theme to your menu. Serve foods that are fun and unique. For instance, have a Hobo party where the children eat Hobo Hash from a tin can (be sure there are no sharp edges) and drink juice from a jar. Use your favorite hash recipe. The children will love it!
- Make frozen yogurt instead of ice cream or a fruit pie instead of cake.
- Rather than candy for favors, give a ballon, a small puzzle or toy, or some other favor they can look at or play with instead of eat.

Halloween Candy is a Trick, Not a Treat

Beware of Halloween — not because of the ghosts and goblins — but because of the mounds of candy your children are likely to consume! Some alternatives are: apples, popcorn, peanuts in the shell, oranges, balloons, granola bars, or bread pretzels. Be the first on your block to "Ban the Candy at Halloween"!



The Good-Food Action Plan

Chapter 4

Being a Smart Consumer

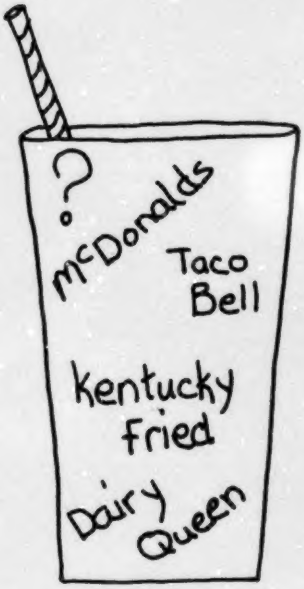
What would your great grandparents say if they spent the day eating with you? A meal of Potato-Twirls, fish sticks, frozen mixed vegetables, and Whipped Delight for dessert would not be a familiar sight. And if they were plopped down in a modern supermarket, they would probably not know for sure whether they were in a toy, hardware, or grocery store.

A consumer has to be a sharp cookie these days to know how to purchase food. There are over 10,000 food products on the market shelves from which to choose. This expansive food market is to our advantage for a number of reasons. There is a greater variety of foods available to us all year-round. Different brands plus generic products provide a wider range of quality. Because of keen competition, products are being altered and improved to gain a jump on consumer choices.

There is another side to this coin, however. The food choices of the American people are shifting from the more simple, whole foods to those that are highly processed. This trend could create health problems for us. In general, it is the highly processed foods that contain undesirable amounts of salt, sugar, fat, or other additives that may be potentially dangerous.

Vote and Be Counted

The wise consumer chooses foods that are healthful, not harmful. A food purchase in a supermarket is a vote for the product, and the food industry carefully counts its votes to determine new consumer directions. So when you do your food voting, elect a candidate that will serve you in a healthy way.



The Lure of Fast Foods

We are busy folks. In more and more families, both the husband and wife have jobs. Although **eating** is still a priority (we can never get too busy for that), **cooking** has taken a back seat in the daily family schedule. Parents who work are less likely to prepare a hot breakfast and more likely to serve a dinner made from packaged convenience foods than their non-working counterparts. One out of three dollars is now spent on food prepared away from the home, and this amount is predicted to rise to half of our food dollar by 1990.

The Influence of Fast Foods on Our Health

Fast food restaurants gobble up much of the money we spend on eating out. They have been a major influence in changing our food habits. The limited food choices we have in fast food chains encourage a diet of little variety. You might ask yourself, "What's wrong with eating more French fries, fish, chicken, or hamburgers?" Good question. Considering each food separately, there is nothing wrong with any of them. But if eaten reqularly, fast foods have some nutritional drawbacks in common:

- Most fast foods are fried, which means you are eating a diet high in fat.
- Fast foods are high in salt. Salt is added to fried fish, fried chicken, hamburgers, French fries, and the "accessories", such as pickles, catsup, and cheese.
- Soft drinks go hand-in-hand with fast foods. Who ever orders apple juice?
- Fast foods displace fresh fruits and vegetables. What is **not** eaten may be more than what **is** eaten.
- Fast foods are generally low in fiber. Who ever heard of a burger on a whole grain bun?

It would be unrealistic to ban fast food restaurants. Because of the busy lives we lead, it is occasionally necessary to grab a fast bite. But moderation is the key word. It is better for children to learn about food from the oven, garden, and refrigerator than from plastic wrappers and cardboard boxes.

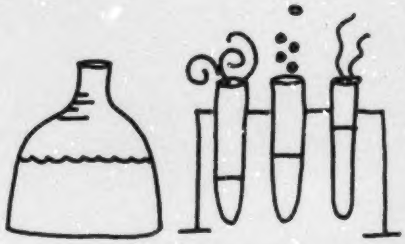
Fast Food Figures

(Listed as pounds of food consumed per person in one year)

FOOD	1960	1976
Ice milk	4.5	7.4
Frozen potatoes (88% as French fries)	6.6	36.8
Fresh / frozen fish	3.8	5.5
Chicken (Kentucky Fried averages: 10 pieces/American/year)	27.8	43.3
Beef (McDonalds averages: 11 burgers/American/year)	63.3	95.4
Cheese (92% as "pizza" cheese)	8.3	15.4
Chili sauce, catsup, tomato paste, and sauce	7.6	13.3
Pickles	4.5	8.4
Soda pop (16 oz. or 1 lb. serving)	96	246

Additives Add Up

We eat "natural chemicals" every day in our food. For instance, if you had toast or coffee cake for breakfast, you were eating gluten, amino acids, amylose, starches, dextrins, pentosans, hexosans, mono-and diglycerides, acetic acid, propionic acid, and methylethyl ketone — just to name a few chemicals that make up grain products. All of these substances can be man-made in a chemistry laboratory and are exactly the same as the natural chemicals from food sources.



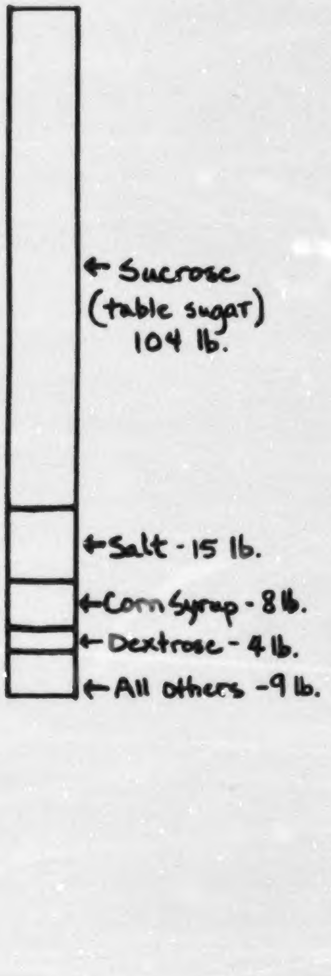
However, many new chemicals that are being made in the laboratory do not resemble the chemical structures that are found in nature. When they are added to foods, our body systems don't recognize them or know how to handle them. These are the food additives that concern us.

Why Are Food Additives Used?

To the food industry, additives mean that foods can be shipped from faraway places and stay fresher longer. Additives are used for cosmetic reasons to make processed foods more appealing. Some "foods" are assembled in the laboratory from various additives to resemble the natural food product. To the consumer, food additives mean that some food can be guaranteed safe for consumption and that there is variety on the supermarket shelf.

Some people question the overuse of additives because they are sometimes used to mask inferior foods. Others question the safety of some additives which have been allowed on the market but may be harmful.

140 Pounds of Additives



Better Living Through Chemistry?

There are over 2,000 different food additives used in food processing today. Three additives account for 91% by weight of all food additives used. They are sucrose, salt, and corn syrup. Thirty additional additives account for the next 5.5%. These include yeast, citric acid, baking soda, vegetable colors, mustard, pepper, and carbonated gas in soda pop. The rest account for 1.5%. This adds up to a total of approximately 140 pounds of additives per person per year.

Possibly 1% of these additives are healthful. Those include the vitamins and minerals added to milk and grain products for enrichment and fortification. The health effects of all the rest are not really known. Additives that are **proven** harmful are taken off the market. Other additives, where evidence about safety is not conclusive, are left on the market to be used at the discretion of the consumer. How does a consumer decide? In the long run, it is better to choose your foods carefully. Learn to read labels and buy the foods with the fewest number of additives. When both our health and that of our children are at stake, it's better to be safe than sorry.

Making a Choice on Food Additives

Here is a guideline for you to use when purchasing foods*. This list includes additives that you will see most commonly in foods on the supermarket shelves.

Beneficial Additives:

Vitamin A & D
Iodine
Iron, thiamin, riboflavin, niacin
Ascorbic acid (Vitamin C)
Beta-carotene (Vitamin A)

Safe Additives:

Calcium proprionate
Calcium steroyl lactate
EDTA
Fumaric acid
Glycerin
Lactic acid
Gums — locust bean, arabic, furcellan, guar, acacia

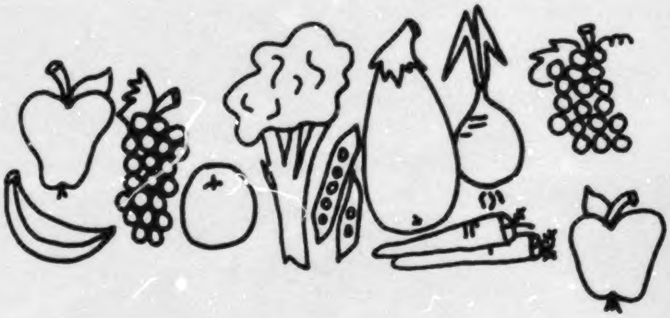
Limit Use Of:

Sodium nitrite and nitrate
MSG
Caffeine
Propyl gallate
Sodium bisulfide
Sulfur dioxide
Sucrose, corn syrup, dextrose, salt

Avoid Use Of:

Artificial flavors and colors
Brominated vegetable oils
BHT
Saccharine

*List modified from "Chemical Cuisine", Center for Science in the Public Interest, 1755 S Street, N.W., Washington, D.C., 20009.

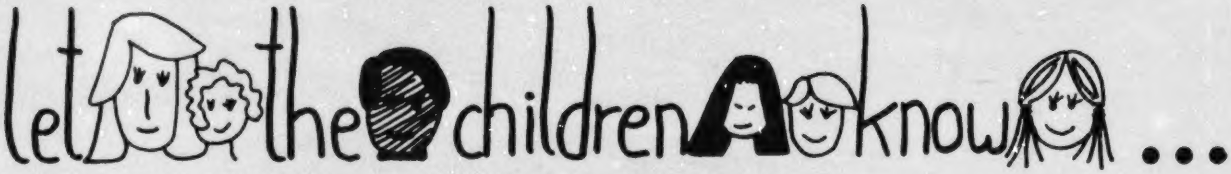


THE CHEMICAL CUISINE

Secret scientific code? Homework from Chemistry Lab 101? Dr. Jekyl's favorite drink? No, it's food you eat every day. See if you can match the chemical ingredients with the name of the food. (Good Luck!)

INGREDIENTS		NAME OF FOOD
1. corn syrup solids, partially hydrogenated vegetable oils, sodium caseinate,mono-diglycerides, dipotassium phosphate, artificial flavor, artificial color.	___	pepperoni
2. enriched egg noodles, modified food starch, vegetables, salt, natural flavors, chicken, B.H.A., propylgalate, citric acid, corn syrup, onions, M.S.G., flavor and coloring, disodium inosinate, disodium guanylate.	___	Dream Whip
3. sugar, dextrose (corn sugar), cornstarch, salt, caramel color, polysorbate 60, calcium carrageenan, artificial color including FD & C Yellow No. 5, natural and artificial flavors.	___	chicken vegetable soup
4. potassium chloride, cornstarch, sugar, hydrolyzed vegetable protein, dextrose, beef fat, onion powder, monoammonium glutamate, corn syrup solids, garlic powder, gum arabic, natural flavors, disodium guanylate, disodium inosinate, L-cysteine hydrochloride, thiamin hydrochloride.	___	Coffee Mate
5. sugar, hydrogenated palm kernel oil, propylene glycol monostearate, corn syrup solids, sodium caseinate, whey, sodium silicoaluminate, hydroxilated soybean lecithin, acetylated monoglycerides, hydroxypropylcellulose, microcrystalline cellulose, artificial flavor, sodium carboxymethylcellulose, B.H.A., citric acid, artificial color.	___	butterscotch pudding and pie filling
6. pork and beef, salt, dextrose, paprika, natural flavor, smoke flavor, garlic, lactic acid starter, sodium nitrate, B.H.A., B.H.T.	___	beef bouillon

Answers: pepperoni (6), Dream Whip (5), chicken vegetable soup (2), Coffee Mate (1), butterscotch pudding and pie filling (3), beef bouillon (4).



let the children know ...

- **that some foods are "junk foods" and not good for them to eat**

What I Eat and What I Don't Eat

Children can learn to distinguish between wholesome food and "junk" food. Tell them that some foods aren't good to eat, such as, candy bars, jelly beans, suckers, potato chips, sodas, and other "snack" foods. Then tell them that some foods are good to eat, such as apples, bananas, peanuts, cheese, crackers, etc.

Recite this little poem and let the children fill in the foods that they eat.

Fat kids, skinny kids,
Kids who climb on boxes,
Tall kids, small kids,
Kids with dirty socks,
Eat **peanuts** *(carrots, apples, peaches, etc.)*

Adapted from: Ellen S. Marbach, Martha Plass, Lily Hsu O'Connell. **Nutrition in a Changing World. A Curriculum for Primary Level Grades 1-3.** (Provo, Utah: Brigham Young University Press, 1980) p. 58. Reprinted with permission.

Fast Food Munchies

Save the styrofoam containers from your local fast food restaurant to make your own fast food munch box. Cut up some raw fruits and vegetables into bite size pieces. Include some other munchables, such as crackers and cheese cubes. Have a munch party and eat right out of the box.

"Ring Around the Rosie"

This activity is fun to do and teaches the difference between "junk" foods and foods that are healthy. Form a circle and recite the following rhyme. Have the children fall down when a "junk" food is named.

Ring around the rosie,
A pocket full of posies,
Apples, Apples, we all fall down. *(Don't fall)*
Ring around the rosie,
A pocket full of posies,
Candy, Candy, we all fall down *(Fall down).*

The Science of Menu Planning

Helpful tips
Careful Budgeting!
Variety♡
Good Food Habits

Menu planning is both a science and an art. Some of us do it as we walk down the supermarket aisles deciding what we want to buy for the coming week. Others are more systematic and plan ahead of time the types of foods that should be served to fit certain meal patterns. Whatever your style, menu planning is important.

What's to Eat?

That question sounds simple enough, but there's more to it than meets the eye. In deciding what to serve your family or day care children, you must consider the nutritional quality of foods, variety, contrast of color, shape, flavor and texture, and economy. The following guidelines will help you plan better meals.

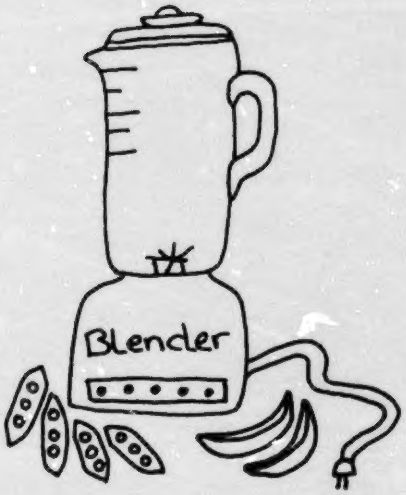
PLAN MENUS TO MEET NUTRIENT NEEDS. The easiest way to do this is to follow the **Guideline for a Healthy Food Pattern.** Serve fruits, vegetables, beans, and whole grain foods liberally. Provide lowfat dairy products and lean meats in moderate amounts. Limit intake of high-fat foods such as whole milk and high-fat meats. And try to eliminate sweets, salty foods, and fatty foods in the diet. Also, remember Mother Nature. If you serve foods that are close to her design (unprocessed), you're on the right track.

PLAN MENUS WITHIN THE LIMITATIONS OF YOUR BUDGET, TIME, AND KITCHEN EQUIPMENT. Precise planning makes it easier to control spending for food and eliminates waste. Time used wisely in planning ahead is time saved for other activities. Learn to use your kitchen equipment to its fullest extent. The blender that often sits on the counter gathering dust is great for making mayonnaise, muffins, peanut butter, and dips!

PLAN FOR VARIETY. Young children usually have little choice of what they eat. Because of this, offer enough variety to minimize monotony while still meeting their food preferences.

PLAN WITH CONSIDERATION OF FOOD HABITS. If you are providing day care, the food you serve should reflect the food habits of children from families of varying cultural, racial, or religious backgrounds. Occasionally include favorites suggested by the children or create learning about other countries through one of many ethnic foods.

PLAN FOR SPECIAL OCCASIONS. Festive occasions are fun at any age. Young children especially enjoy birthday and holiday treats. Remember that half of the fun is in the planning. The happiest parties are those in which the children can share in the planning and preparation.



Five Easy Steps to Menu Planning

Step 1 - List main dishes for the week, for both breakfast and lunch.
Step 2 - List vegetables and fruits, including salads, for main meal. Take advantage of fruits and vegetables in season.
Step 3 - Add cereal products and bread.
Step 4 - Add beverage; be sure to include required amount of milk.
Step 5 - Plan snacks last to balance your meals — especially check for foods that are good sources of vitamins A and C and iron-rich foods.

Menu Checklist

How do you rate yourself as a menu planner? Take a menu from an average day and ask yourself the following questions:

Appeal

1. Are the lunches planned with good color contrast?
2. Does the shape of the food vary?
3. Do the meals include something crisp and something soft?
4. Are you using some foods which are familiar to the children?
5. Are you introducing a new nutritious food?
6. Do the lunches have foods with both mild and strong flavors?

Nutrition

1. Are the snacks planned to complement or balance the main meals?
2. Are some raw fruits and vegetables used daily?
3. Are several iron-rich foods included daily?
4. Is a vitamin A food included daily?
5. Is a vitamin C food included daily?
6. Are the children's protein needs met?
7. Has the use of sugar been kept to a minimum?
8. Has the excessive use of fat been avoided?
9. Has salt been used sparingly?

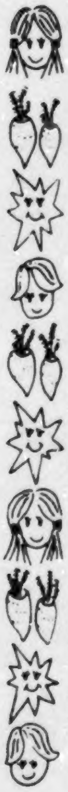
Cost

1. Is there a balance between low cost and high cost items?
2. Did you use foods that are in season?

The more questions you answered "yes", the better your menu. You will find that a little bit of menu planning will go a long way. It will help you save money, provide more variety in the diet, improve the nutritional quality of your meals, and add some zip to the food you serve.

Menu-For-The-Week

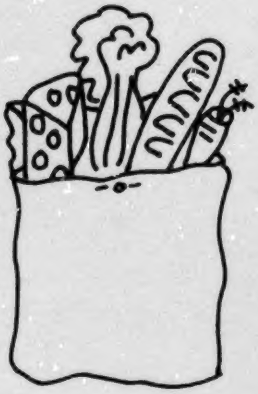
The following menu is designed to meet the USDA Child Care Food Program requirements. Use this menu to trigger new ideas and make your own menu-for-the-week. Remember to include foods that children like and that are also good for them to eat.



		Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast	Fluid Milk	Milk	Milk	Milk	Milk	Milk
	Juice, Fruit, or Vegetable	Orange Juice	½ Grapefruit	Grape Juice	Orange Juice	Apple Juice
	Bread or Bread Alternate	Whole Wheat Toast	Oatmeal	Waffles	Cream of Wheat	Corn Cereal
Supplement Serve 2 of 4 choices	Fluid Milk	Milk				
	Juice, Fruit or Vegetable			Apple Juice	Canned Pears	Apples
	Bread or Bread Alternate	Banana Bread	Graham Crackers	Oatmeal Cookies		
	Meat or Meat Alternate		Peanut Butter		Cottage Cheese	Peanut Butter
Lunch	Fluid Milk	Milk	Milk	Milk	Milk	Milk
	2 Servings of Fruit and/or Vegetables	Green Beans	Peas, Carrots Potatoes, Corn	Peas, Carrots	Green Salad with Tomatoes & Carrots	Peas
		Banana	Apricots	Peaches	Applesauce	Pears
	Bread or Bread Alternate	Bun	Pie Crust	Biscuits	Muffins	Noodles
	Meat or Meat Alternate	Vegeburger & Cheese	Chicken (pot pie)	Beef	Great Northern Dried Beans	Tuna-cheese Casserole
Supplement Serve 2 of 4 choices	Fluid Milk					Milk
	Juice, Fruit or Vegetable	(Water)	Apple Juice	Celery	(Water)	Carrot-raisin Salad
	Bread or Bread Alternate	Bagel	Banana Bread		Rye Crackers	
	Meat or Meat Alternate	Cheese		Peanut Butter	Cheese	
Supper	Fluid Milk	Milk	Milk	Milk	Milk	Milk
	2 Servings of Fruit and/or Vegetables	Green Peppers	Broccoli	Green Beans	Tomato	Potatoes
		Apples	Applesauce	Carrot Sticks	Pineapple & Bananas	Peas & Apples
	Bread or Bread Alternate	Rice	Enriched Flour Tortilla	Macaroni	Spaghetti	Rolls
	Meat or Meat Alternate	Hamburger (Stuffed Peppers)	Pinto Beans & Cheese	Cheese	Hamburger	Swiss Steak
Supplement Serve 2 of 4 choices	Fluid Milk			Milk and		
	Juice, Fruit or Vegetable	Orange Juice Popsicle	Pears	Banana-Orange Juice Shake		Raisins & Apple Juice
	Bread or Bread Alternate	Sesame Crackers			Cracked Wheat Bread	Crackers
	Meat or Meat Alternate		Cottage Cheese		Peanut Butter	

BEST COPY AVAILABLE

The Art of Grocery Shopping



Don't let anyone tell you that shopping is just shopping. It is knowing and comparing prices, recognizing good buys, understanding and applying principles of nutrition, and using your organizational and planning skills.

Here are some supermarket strategies that will help any good shopper become better.

Make use of unit pricing. Unit pricing is a system used in supermarkets that compares comparable items by price. You will find the unit prices either above or below the items on the supermarket shelves. Since the units are always the same within any group of foods, all you need to do is compare unit prices, and you will know which is the better buy in terms of cost. Of course, you may not always want to buy the least expensive item, but you can decide if the added cost is worth it to you.

EXAMPLE OF UNIT PRICING:

ITEM PRICE $1.55	UNIT PRICE $2.48 / lb.
Longhorn Cheese	
12 / 10 oz.	0-71030-08141

ITEM PRICE $.83	UNIT PRICE $3.32 / lb.
Shredded Cheddar	
12 / 4 oz.	0-31000-02474

Look for pull dates or expiration dates. There are a number of different dating systems used with supermarket items. Dairy products have a pull date after which time they should not be sold. That date might look like this - "Apr 17", or "0417", or "417". Meats have a number stamped on the label that says the day of the month the meat was wrapped. This is an indication of its freshness. Some packages say "Sell by April 17" which means that the manufacturer thinks it would be best if the retailer sold the food by that date. Others say "Better if used by April 17" or "Remains fresh at least one week after date stamped." If a package says "Do not use after April 17" or "Exp Apr 17", that means it is unsafe to use after that date.

Read the labels. The ingredients are always listed in order by weight. Nutrition labeling also tells you serving sizes, calories, amount of protein, fat, carbohydrate, and the nutrient content of certain vitamins and minerals. From label reading you can eliminate foods that contain unwanted additives. For example, by comparing the following two ingredient lists on two baby food items, you can see that strained peaches are a better buy from a nutritional point of view. Although the additional additives in the peach cobbler aren't harmful, they are unnecessary.

STRAINED PEACHES
Peaches Sugar Vitamin C

PEACH COBBLER
Peaches, Water, Sugar, Modified Tapioca Starch, Wheat Flour, Vitamin C, Salt, Cinnamon, Citric Acid

Make use of generic products and store brands. Generics have no fancy packaging and don't include the cost of expensive advertising. The quality of the food may not be as high as name brands, but they are generally as good nutritionally. Store brands often contain exactly the same products as name brands and are usually more economical.

Buy foods that have maximum nutrients with a minimum amount of processing. Here are some guidelines:

Meat - Good Buys: liver, lean meat, tuna, cod, flounder, chicken, turkey.

Bad Buys: bologna, hot dogs, bacon, all processed meats.

Dairy Products - Good Buys: nonfat dry milk and skim milk (except for children), cottage cheese, lowfat brick cheeses.

Bad Buys: imitation creamers, filled milk (expensive coconut oil which is highly saturated fat used to replace butter fat), cream cheese, cheese spreads.

Fruits and Vegetables - Good Buys: fresh, in-season fruits and vegetables; high vitamin C foods, such as oranges, grapefruit, tomatoes, cabbage, broccoli, strawberries, cantaloupe, watermelons; high vitamin A foods, such as broccoli, kale, collards, apricots, cantaloupe, carrots, greens, pumpkins, sweet potatoes, any green leafy vegetables.

Bad Buys: frozen vegetables in cream sauces, synthetic fruits found in baked goods, fruit drinks.

Breads and Cereals - Good Buys: whole grain bread and cereals without sugar.

Bad Buys: sugar-coated cereals, white bread, and refined grain products.

Smart Shopping Tips

- Keep a current shopping list. As you finish an item, put it on the list. As you think of ideas for upcoming meals, list the foods you will need.
- Do a major shopping once a week. Plan your meals ahead, check supplies, and complete your shopping list accordingly. The less often you go to the store, the less impulse buying you will do. You may want to get fresh food more often.
- While a convenience food may be a blessing, frequent use will cause the budget to skyrocket. For instance, macaroni and cheese is easy to make "from scratch", less expensive, and usually more nutritious than packaged.

- Check advertised specials but don't get caught in buying something you don't want because it's a "good deal". Food is only a good buy if you can store it adequately, if it is of good nutritional quality, and if the family and day care children will eat it. Check newspaper ads for coupons and specials on foods that are normally part of your weekly shopping list.

- Plan your route through the supermarket. Don't retrace your steps. Buy frozen and refrigerated items last so they will not warm up too much.

- Hungry shoppers tend to buy more than what is needed. Plan to shop on a full stomach.

- LEAVE THE KIDS AT HOME IF YOU CAN'T SAY "NO" AND MEAN IT.

- When buying frozen foods, choose packages that are firm and clean. Discoloration in packaging indicates that the product may have been thawed and refrozen.

- Ask the checker to call the prices as he/she rings them up. Checkers are less likely to make mistakes that way.

Did you know that:

- There are so many different items in a supermarket, if you stopped to look at each one for just 30 seconds, you wouldn't get out of the store for 11 days.

- All refrigerated units (except for freezers) are placed around the outside of the store for better insulation and easier stocking.

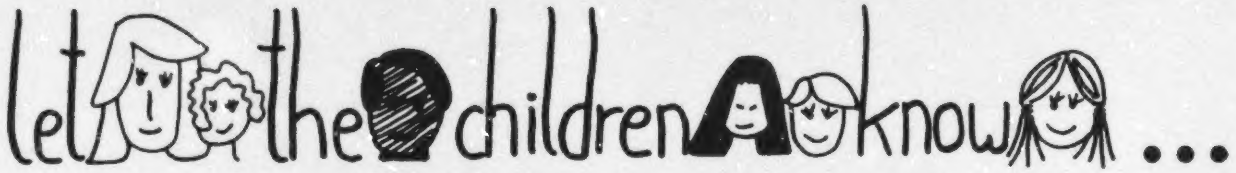
- A supermarket cart is designed to carry 1,000 pounds (½ ton).

- More than 10% of the money you spend on foods goes for packaging.

- The typical shopper makes one purchase about every 30 seconds while in the store.
- Stores put their most popular items at eye level so they can be seen immediately.

- New products on the market are also put at eye level for easier reach.

- Candy is placed at the check-out counter to take advantage of impulse buying.



let the children know . . .

- **where food comes from**
- **how food is bought**

The People Involved in Food

There are many people who help us get our food. We can use bread as an example of all the steps that are necessary for us to get food from the field to the table.

The following song can be acted out by 5 children. Let one be a farmer, a miller, a baker, a trucker, and a grocer.

The Farmer Grows the Wheat
(to the tune of "The Farmer in the Dell".)

The farmer grows the wheat, The farmer grows the wheat, Hi Ho the dairy oh, The farmer grows the wheat.	*(Child acts out digging, planting, gathering the wheat.)*
The miller grinds the flour, *etc.*	*(Child acts out kneading, rolling the dough, putting it into the oven.)*
The truck goes to the store, *etc.*	*(Child acts like she's driving a truck.)*
The grocer sells the bread, *etc.*	*(Child pretends he is selling food to a customer.)*
The child eats the slice, *etc.*	*(All the children can eat a slice of bread.)*

Adapted from Ellen S. Marback, Martha Plass, Lily Hsu O'Connell. **Nutrition in a Changing World: A Curriculum for Preschool.** (Provo, Utah: Brigham Young University Press, 1979) p. 102. Reprinted with permission.

Going Where the Action Is

There are many field trips within your own community that will show children where food comes from. Here are some suggestions: bakery, dairy, egg farm, cannery, fishery, cheese plant, orchards, or any other place that is unique to your area.

Little Shoppers

Prepare a supermarket kit and let the children play "Let's Go Shopping". The kit should include: paper bags, receipts, an assortment of canned and boxed goods, a shoe box as a cash register, play money, shopping cart made from a large box or wagon. Show the children how to select good foods and put them in their "shopping cart". At the "check-out stand", someone can call out prices and another can bag the food.

Talk about what foods they bought. Let them help make the shopping list for the next shopping trip.

Food Safety From All Angles

We live in a partnership with germs. They are **everywhere.** In fact, we take in millions every day. Some are friendly and some are not. It is the not-friendly germs that are a problem.

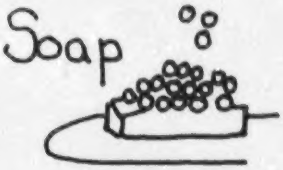
Most bacteria (germs) that make us sick are concentrated around a person's nose, mouth, or harbored in the intestinal tract. Most illness from food results from bacteria that have lived on the food and multiplied into the millions.

Our bodies can handle a certain number of bad bacteria, but we don't want to push our luck. There are ways to keep the germ/human partnership to our benefit.

Wash Your Hands, Kiddies

You've heard the saying, "Cleanliness is next to godliness"? Well, it's next to germlessness if nothing else. Handwashing is a good habit for both you and the children. And don't forget the soap. Even that yukky piece in the public washroom is better than no soap at all.

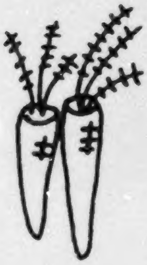
It is particularly important to keep things clean when you aren't feeling well because it is so easy to transmit illness during the process of food preparation. Cover cuts, burns, coughs, and sneezes, and wash hands carefully after using the toilet. And avoid using the same spoon more than once after tasting during cooking.

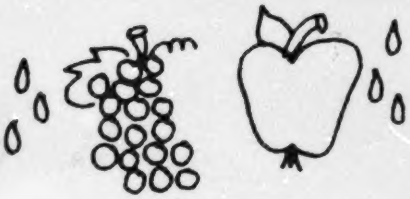


Here are more "clean" ideas:

- Cook with clean hair and clothing.
- Wash hands with soap and water after touching raw meat, poultry, or eggs before working with other foods.
- Avoid using hands to mix foods when clean utensils can be used.
- Thoroughly clean all dishes, utensils, and work surfaces with soap and water after each use.
- Thoroughly clean equipment and work surfaces that have been used for raw food before using for cooked food.
- Bacteria can be destroyed by rinsing utensils and work surfaces with chlorine bleach. Cutting boards, meat grinders, blenders, and can openers particularly need this protection.
- Always wipe up spills with paper towels or other disposable materials.

Canned goods don't last forever, so don't overload on canned goods. Rotate cans so none are older than 1 year. Quality deteriorates rapidly for cherries, onions, pumpkin, sauerkraut, and tomato products. These acid foods, although safe to eat, may develop a tinny taste, as well as discoloration.





XX
flour
XXX
RICE

Know Your Vendor

We need to buy foods that are safe for consumption. The skinned cat, hanging from a hook in an open-air market in Calcutta, India, just won't do. Meats, produce, canned goods, and bakery products should be obtained from a source you can trust.

Milk should be pasteurized unless you are guaranteed high sanitation standards from the dairy that markets unpasteurized milk. All foods purchased in containers should be well sealed. Canned goods should not be rusted, swollen, or leaky. Dented cans are not necessarily a health hazard. But if the dents are on the rims or seam of the can, a leak may develop. Before using grains, such as oatmeal, cornmeal, or flour, examine to be sure they are not infested with pests.

Hot's Hot and Cold's Cold

Ideally, after food is cooked, it should be served and eaten immediately. If it is held before serving, keep hot foods above 140° (HOT) and cold foods below 40° (COLD). Foods should not be held for more than 2-3 hours at temperatures between 60° and 125°. Holding foods for several hours in an oven prior to cooking is not safe if the food is at a temperature between 60° and 125°.

Meats should not be thawed on the counter or on top of the stove. Thaw either in the refrigerator, during the cooking process, or in a microwave oven.

Foods that have the most potential for spoilage are: milk or milk products, eggs (not including clean, whole, uncracked, odor-free eggs), meat, poultry, fish, and shellfish.

Storage Safety

We have all looked in amazement at the array of colors growing on the surface of cooked pinto beans which have been sitting in the refrigerator for two weeks. Although refrigeration does prevent some spoilage, it can't work miracles. Here are a few tips for safe refrigeration and freezing:

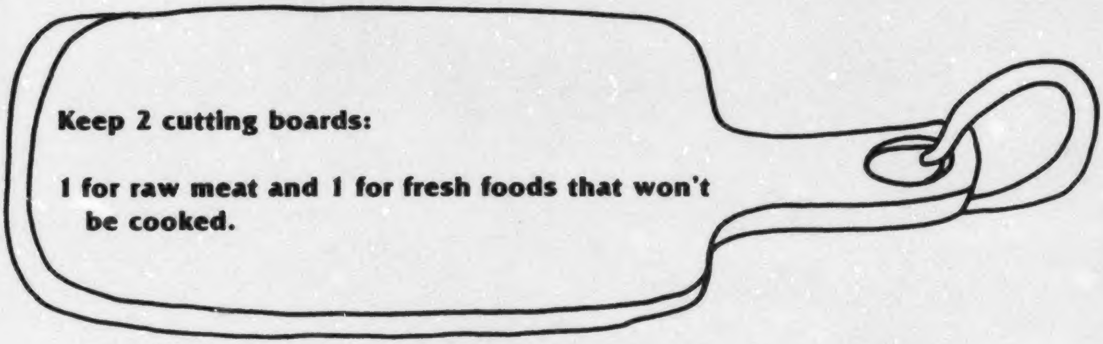
- Cool foods promptly to hold down the number of bacteria to a safe level.
- Do not overload the refrigerator to hinder the circulation.
- Store leftovers in well covered containers **above** the fresh foods.
- Store raw products lower than other food since they carry a higher capacity for bacterial growth.
- Generally, 72 hours is the maximum time for keeping leftovers.

- Do not refrigerate raw meat more than 5 days or poultry, fish, or ground meat more than 2 days.
- Put your frozen foods in the freezer as soon as possible after purchase and store at 0° F.

Dry storage is just as important as cold storage. The recommended temperature range for a dry storage area is 50-70° F. Cupboards and storage rooms should be free of excessive moisture. Shelves should be far enough off the floor to allow cleaning and protection from contamination.

A favorite stomping ground for insects and rodents is under the sink. There may be openings around pipes where insects can enter or leaks that can cause rust on cans or molds on boxed foods. Cupboards next to the stove or other heat sources aren't good for food storage. The heat dries up mixes, bread, and flour and also encourages insect infestation.

Cleaning compounds, as well as first aid supplies, should be stored separately from food. You never know when you'll be in a hurry and mistake furniture polish for salad oil! Although pest strips are helpful, they should not be used around food areas. An old fashioned fly swatter is your best bet.



Keep 2 cutting boards:

1 for raw meat and 1 for fresh foods that won't be cooked.

A Day in the Life of a Bacteria

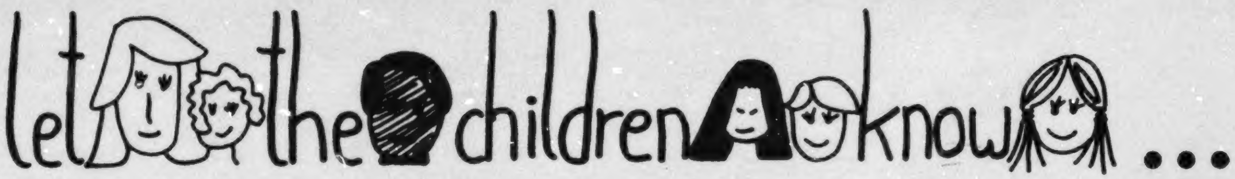
"Well, here we are, gang. Looks like there's only a few thousand of us left after that cold night in the frig. B-r-r-r! I hope we don't have to go through that again.

"Oh, goody. On our way to the picnic. Isn't it fun oozing around in these yummy eggs, mayonnaise, olives — what a great life.

"Feel that sun beating down on the aluminum foil. Just perfect to get things moving. As soon as it gets a little warm, we'll be back in the millions again. I can't wait. How I love crowds!

"Lucky for us, they like to play volleyball for a long time. It gives us more time to eat and grow. Uh oh. Someone's ready to take a bite. Down the hatch we go. Won't they be in for a surprise! Well, it's been a good life being a bacteria. Too bad we don't get the recognition we deserve. We sure work hard when we get the chance!"

Idea for story from: Helen Black. **"As Millions Cheered", The Berkeley Co-op Food Book: Eat Better and Spend Less (Palo Alto: Bull Publishing Company 1980) pg. 231.**



let the children know ...

- **that it is important to have clean hands before eating**
- **that foods can spoil and then shouldn't be eaten**
- **how to identify non-food items that shouldn't be eaten**

Clean-Hand Fingerplays

When the children wash their hands, they can do this little activity:

A germ doesn't like warm water, *(Shake head "no".)*
it's afraid of a bubble. *(Look frightened.)*
Soap and water to a germ,
Mean trouble, trouble, trouble. *(Shake finger three times.)*

After they've washed their hands, do the following fingerplay:

This little hand is a clean little hand. *(Hold up one hand.)*
This little hand is his brother. *(Hold up the other hand.)*
They both keep clean and like to be seen
Washing one another. *(Make washing motions with both hands.)*

Taken from: Jenny Golay and Karen Foreman. **Food for Growth: An In-Home Nutrition Education Curriculum for Preschoolers** (Community Child Care Council of Sonoma County: California Nutrition and Education Training Program, 1981) pg. 7

Keeping Food Safe

Teach the importance of safe and proper food storage with the following activity. Put an assortment of foods on a tray and leave them uncovered and at room temperature for a few days. Let the children see the foods before they start to spoil. Include a small glass of milk, a small piece of raw meat, a slice of dampened bread, a lettuce leaf, a cracker, and some dried fruit. Keep the foods out of reach while they are "aging". In a few days, look at the tray of food. What things have spoiled? Spoiled food should not be eaten. Where is the milk, meat, and lettuce stored so it won't spoil? Why didn't the cracker or dried fruit spoil?

Introducing Mr. Yuk

Most poison control centers have "Mr. Yuk" stickers that can be put on non-food items. These stickers are a reminder to children not to put any of these things in their mouths. Tell the children that Mr. Yuk doesn't want children to be sick. Show them some items that have the Mr. Yuk sticker, such as dish soap, aspirin, bubble bath, cologne, etc.

William's Story

Read William's story to the children. They can be like William and learn to distinguish between food and non-food items.

William

One day William was home, and he was hungry. He decided to get something to eat. He went to the kitchen and looked around. Where do you think he decided to look for food? (Refrigerator, cupboard.) Well, William went to the cupboard under the sink and looked inside. His mother kept her cleaning things there. What do you think William saw? (Cleaners, soaps, rags, buckets.) Do you think William found anything to eat there? (No.) William closed the cupboard door. "Nothing good to eat there," he thought to himself.

Then William went over to the kitchen table. There were his father's cigarettes and a pencil. Did William see anything good for him to eat there? (No.)

William scratched his head. He decided to go to the bathroom to look for something in the bottles in the medicine cabinet. He knew that people took medicine to make them feel better. He thought maybe he wouldn't feel hungry. Will pills make William stop feeling hungry? (No.) William climbed up on a chair and got a bottle. He pulled and pulled on the top. He tried to twist it. But it wouldn't come off. Do you think William would find anything good to eat in that bottle? (No.) William finally remembered something. "This bottle has a 'childproof' cap," he thought. "I wonder if childproof means that children shouldn't be able to get them open." Do you think that's what childproof means? (Yes.)

William went back to the kitchen. He spotted a big red apple on the counter. "I'll eat that," he thought. "Then I won't feel hungry." Would an apple be a good thing for William to eat? (Yes.) What else would be? What wouldn't be?

Taken from: Ellen S. Marback, Martha Plass, Lily Hsu O'Connell. **Nutrition in a Changing World: A Curriculum for Preschool.** (Provo, Utah: Brigham Young University Press, 1979) p. 107-108. Reprinted with permission.

Kitchen Wisdom—Tried and True

We all have our little set of helpful hints that we've collected over the years. What might be considered an insignificant bit of information could become just the jewel of knowledge we need to save the day in the kitchen. The following helpful hints have been collected from day care providers who are experts at "kitchen wisdom" and know what children like.

Fruits and Vegetables

- When baking apples, try slitting the skin with a knife in three or four places. The skins won't wrinkle while in the oven. Stuff apples with raisins and nuts and sprinkle with cinnamon before baking. Delicious!
- Keep ripe bananas for later use by peeling and standing in a Mason jar in the refrigerator.
- Before using oranges, grate the rinds for use as flavoring for cookies, breads, etc. Don't grate too deeply because the white part of the rind may be bitter.
- Try mixing cranberries with applesauce. Serve with a slice of cheese.
- For an easy snack, try broiling or baking drained peach or pear halves. Grate cheese on top for added flavor.
- To peel peaches, dip in boiling water for 1-2 minutes and then put under cold, running water. The skins will slip right off.
- Raisins will keep longer if stored in a covered jar in the refrigerator.
- Use yogurt, lemon juice, and dill weed for cole slaw dressing.
- Try finely chopped raw cauliflower in a tossed green salad.
- Add a little shredded orange rind to string beans as they are cooking. Great flavor!

Bread / Cereal / Grains

- Thicken a long-cooking soup by adding a handful of oatmeal at the beginning. The oatmeal adds texture and body.
- Rinse cooked pasta under hot water rather than cold water. It washes off the excess starch but keeps the pasta hot.
- Prevent cooked rice from getting "gummy" by boiling in a larger amount of water than called for.
- Avoid baked goods from sticking to the bottom of the pans by cutting out a piece of wax paper the same size as the bottom of the pan; grease the paper and the sides of the pan generously. To remove, run a knife around the edges of the pan, turn bread out, and remove the wax paper immediately.
- Toss cooked spaghetti or macaroni with a few tablespoons of vegetable oil as soon as it is drained to keep it from sticking together.
- Buy regular hot cereals instead of the instant kinds to save some money. Pre-sweetened cereals are higher in cost, and you are only paying for additional calories and cavities.

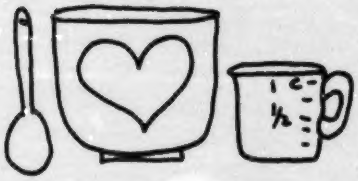
What most of us are able to can and freeze for the winter doesn't come close to the foods a squirrel puts away. A single squirrel may hide 20 or more bushels of foods divided into many small stashes. Unfortunately, it may not find and eat a tenth of that reserve before spring. A little "squirrely", isn't it?

A Small Cozy Dinner for 10,000

Marc-Antolni Careme was a famous French chef who cooked for many famous people — Czar Alexander I, George of England, Baron Rothschild, and Louis XIII, to name a few.

One of his cooking triumphs was to prepare a feast for 10,000 guests in Paris. He prepared 6 cows, 75 calves, 250 sheep, 8,000 turkeys, 2,000 chickens, 1,100 table fowls, 1,000 partridges, 500 hams, 1,000 carp, 1,000 pike, and washed it down with 145 casks of wine.

We may live without friends.
We may live without books.
But civilized man cannot live
without cooks!



Meats and Meat Alternates

- Prepare one inch meatballs formed around small chunks of cheese and freeze. When needed, broil and serve on toothpicks.
- Add drained canned tuna to 2 cups plain low-fat yogurt. Flavor with mustard and your choice of seasonings. Blend thoroughly. Serve as a dip or spread on crackers, toast, or celery.
- Seal a broken eggshell if it cracks during cooking by adding a splash of vinegar to the water. Or let the eggs stand in warm water a few minutes before boiling to prevent cracking.
- Top poached eggs with grated cheese. The children will love them.
- Butter both sides of a piece of bread. Cut the center out with a biscuit cutter. Brown one side of bread in a frying pan. Turn and break an egg into the center and fry. The holes may also be fried. Children love this "Egg in a Hat."
- When frying fish, dip in seasoned milk before frying. It improves the flavor.
- Season hamburger with herbs, such as oregano or basil, instead of salt.
- Use eggs, dried beans and peas, peanut butter, cheese, and cottage cheese in place of meat. Fish, chicken, and turkey usually cost less than beef or pork, and they are lower in fat.

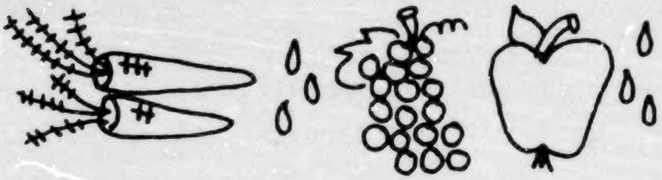
Milk and Milk Products

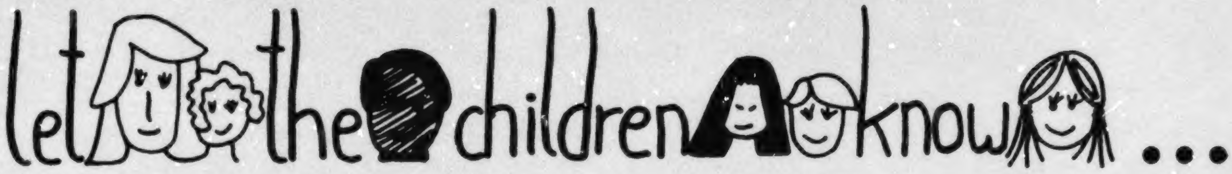
- When sour milk is needed for a recipe, add 3 teaspoons vinegar to 1 cup homogenized milk.
- Try making "milk cubes." Fill an ice cube tray with milk and freeze. The children love them in their glasses of milk, and they come in handy to cool down their hot chocolate or your coffee or tea.
- When refrigerating butter, make sure it is placed in a tightly covered container. This prevents it from absorbing other food flavors.
- Add a small amount of oil to butter when sauteing. The combination of butter and oil prevents the butter from burning as easily.
- Save your wrappers from butter and margarine sticks and keep in the refrigerator for your baking days. Unwrap the papers and use them to grease your pans.

Take the Low Energy Route

Here are some tips on how you can become a more efficient energy consumer.

- Grow fresh produce at home to cut back on fuel used for commerce and freight.
- Go directly to the "source" by eating plant protein instead of animal protein.
- Eat fewer over-processed foods and frozen specialty foods. A T V dinner, with packaging, costs far more in energy than home-cooked items from basic ingredients.
- Avoid the waste of non-returnable beverage containers. A returnable glass bottle has approximately 15 lifetimes.
- Purchase in bulk to save on the energy expense for containers.





let the children know ...

- **that everything has its own place in the kitchen**
- **that we can all take part in mealtime preparation**

What's in the Kitchen?

This is a game that teaches children where and how food is stored in the kitchen.

Cupboards: Ask the children what foods they see on the shelves. Help them to identify the canned fruits and vegetables. What foods are stored in boxes? (cereals, puddings, etc.) What foods are stored in bags? (flour, sugar, rice, etc.)

Refrigerator: What foods do we keep in the refrigerator? Why can't we keep them in the cupboard? (They would spoil.) What would happen to milk if it were left out on the counter for a day? (It would spoil.)

Freezer: What foods are kept in the freezer? Why do we put things in the freezer instead of the refrigerator? (So they will last longer.)

Put-Away

Young children like to sort and match objects that are the same. They can practice this by putting the silverware in the silverware drawer. Show the little ones that all the spoons go into the spoon pile; the forks in the fork pile; etc.

Hokey-Pokey Table Time

Children can have lots of fun learning how to set the table by singing the following song.

Hokey-Pokey Table Time (to the tune of "Hokey Pokey")

Verse 1: You put your plate on the table,
You put your plate on the table,
You put your plate on the table,
And leave it near the edge.

Chorus: You do the Hokey Pokey
And you turn yourself around—
That's what it's all about.

Verse 2: You put the napkin on the left,
(Repeat three times)
And leave it near the edge.

Repeat chorus.

Verse 3: You put the fork on the napkin,
(Repeat three times)
With the right side up.

Repeat chorus.

Verse 4: You put the spoon on the right,
(Repeat three times)
And then you're almost done.

Repeat chorus.

Verse 5: You put the knife with the spoon,
(Repeat three times)
And then the table's set.

Repeat chorus.

Taken from: Ellen S. Marbach, Martha Plass, Lily Hsu O'Connell. **Nutrition in a Changing World: A Curriculum for Primary Levels, Grades 1-3.** (Provo, Utah: Brighan Young University Press, 1979) p. 44-45. Reprinted with permission.

Conserve Energy—Yours and the World's

There's a bumper sticker that says "Conserve Energy — Take a Nap". Unfortunately, since that doesn't put supper on the table, we need to look for other ways to conserve. There are four cooking methods that are particularly energy efficient: cooking in a microwave, in a wok, in a crock pot, and in a pressure cooker. The microwave is best suited for baking; the wok, for frying and steaming; the crock pot, for stewing and simmering; and the pressure cooker does a little bit of it all.

Microwave Cooking

Microwaves cook by rapidly vibrating the moisture molecules in food which causes the food to be cooked from the inside rather than the outside. This method works well with meat and vegetables because of their high water content.

Overcooking can occur more quickly in a microwave than a conventional oven. So it is best to use the least amount of time suggested in microwave cookbooks since you can always return the food to the oven if necessary.

When arranging the food for cooking in a microwave oven, place the larger food parts toward the outside of the pan and the smaller or softer parts in the middle. To get even cooking throughout, sometimes it is necessary to rotate the dish of vegetables a time or two or to let vegetables stand after cooking. For fresh vegetables, a little water is usually needed. Frozen vegetables need no extra liquid. Salt should not be added before cooking because it tends to cause toughness. Add lemon juice and a few herbs to a little water and sprinkle on vegetables after they are cooked.

BAKED FISH WITH VEGETABLES

2 lbs. fish fillets or steaks (about ½ inch thick), thawed if frozen
¼ cup butter or margarine
¼ lb. mushrooms, sliced
½ cup finely chopped green pepper
¼ cup all-purpose flour
dash salt
¼ tsp. pepper
1 package (10 oz.) frozen peas, or green beans, thawed
1 tbsp. lemon juice
¼ cup grated Parmesan cheese
milk

Arrange fish in an even layer in a 7 × 11 inch baking dish. Cover and cook in the microwave oven 3 minutes or until fish flakes easily when probed with a fork. Turn fish over and cook, covered, 2 to 3 minutes. Lift fish to a warm serving platter that has a rim. Pour liquid into a 2 cup measuring glass and reserve.

Add butter to baking dish and cook 1 minute to melt. Add mushrooms and green pepper; cook covered, 4 minutes, stirring once. Stir in flour, salt, and pepper; cook, uncovered, until bubbly (about [illegible] minutes). Add enough milk to fish liquid to make 1 cup total; gradually stir into vegetable mixture and cook, uncovered, 6 minutes or until thickened; stir often. Blend in peas and lemon juice, spoon over fish, and sprinkle with cheese. Return to oven and cook, uncovered, 1 minute, or until heated through. Makes 6 servings.

USDA CCFP Requirements

One ½ cup serving yields approximately 2 ounces of fish and 1½ ounces of vegetables. Add a 2½-ounce serving of another vegetable or fruit to complete the fruit/vegetable requirement.

Cooking With a Wok

The wok was developed in China and commonly used by the poor, who had very little fuel for cooking. It is said that the wok, designed to be energy efficient, can be heated with just a handful of twigs burning at the base of the wok.

The wok is a round metal bowl usually made of carbon steel. It is shaped in such a way that allows a deep base for frying. Woks come in a variety of sizes, but the 14" diameter is best for home use and storage.

The wok is especially suited for stir-frying. Stir-frying is the quick cooking and stirring of foods in a tiny amount of oil over high heat. The foods aren't really fried but flash-cooked and seared. Vegetables come out crisp; and meats are tender, with flavor and juices sealed in. Stir-fried foods do not taste heavy like most fried foods because they do not have time to soak up fat in cooking.

Steaming foods in a wok is so easy and satisfying, it will soon become one of your preferred methods of cooking. A piece of fish or chicken breast will cook as fast in steam as in simmering water with less flavor loss. Steamed vegetables come out crisp and vitamin rich.

There are special cookbooks for wok cooking which are a good investment if you plan on buying and using a wok.

EAST-WEST STIR-FRY

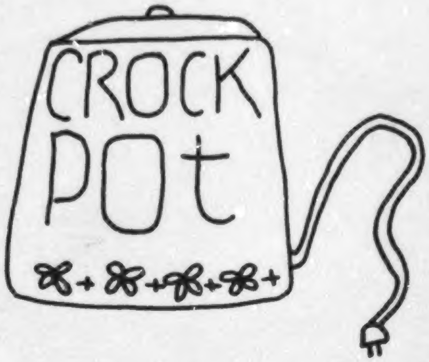
1 lb. lean ground beef
3 tbsp. oil
½ cup chopped onion
½ cup diagonally sliced celery
1 medium carrot, pealed, cut in paper-thin strips with vegetable peeler
½ lb. fresh green beans, trimmed, sliced lengthwise
1 small white turnip, peeled, thinly sliced through stems
4 large fresh mushrooms, trimmed, thinly sliced through stems
½ cup chicken broth
1 tbsp. honey
¼ cup soy sauce
1 tbsp. cornstarch dissolved in 2 tbsp. water
1 (10 oz.) pkg. fresh spinach, washed and steamed
chopped dry-roasted peanuts

USDA CCFP Requirements

One ⅞ cup serving meets the vegetable and meat requirements for lunch or supper. Serve with a whole grain bun and milk.

Shape beef into 1 large patty. Heat 1 tablespoon of the oil in wok over high heat. Add beef patty and brown for 2 to 2½ minutes on each side. Break meat into chunks and stir-fry for 30 seconds. Remove and set aside. Pour remaining 2 tablespoons oil in wok. When sizzling, add onion, celery, carrot, green beans, turnip and mushrooms. Stir-fry for 2 minutes. Pour in broth and reduce heat. Cover and steam for 2-3 minutes. Stir occasionally. Stir in honey, soy sauce, and dissolved cornstarch. Return meat to wok. Place spinach on top of meat and vegetables. Cover and steam for 1 minute. Uncover and stir spinach into sauce. Sprinkle with chopped peanuts.

Cooking With a Crock-Pot



A crock-pot is an electric pot that cooks food at a slow, steady temperature. It is well insulated to prevent heat loss. Steam does not escape from the pot so that vitamins are retained within the soup. They are also not destroyed by high heat. It is a convenient cooking method for busy people because you can leave foods for 6 to 8 hours and return to find them ready to serve.

Inexpensive meats are perfect for a crock-pot because slow cooking tenderizes in a way that broiling or frying can't duplicate. Crock-pots are a good way to use those old vegetables and left-over noodles in soups or to make day-old bread into pudding.

On a low setting, a crock-pot cooks with less energy than a 100 watt light bulb. You can cook all day for only a few pennies—far less than the cost of cooking the same meal on the kitchen stove. You also will find that the crock-pot does not make your kitchen hot in the summertime.

Just as with the wok, there are special cookbooks for crock-pot cooking which will provide you with ideas and recipes so you can get the most use from your crock-pot.

CHICKEN PARMESAN

3 whole chicken breasts (or 6 halves)
1 egg
1 tsp. salt
¼ tsp. pepper
1 cup dry whole wheat bread crumbs
½ cup butter
1 small eggplant, cut into large slices (¾" thick)
6 slices Mozzarella cheese
Parmesan cheese
1 cup spaghetti sauce (below)

USDA CCFP Requirements

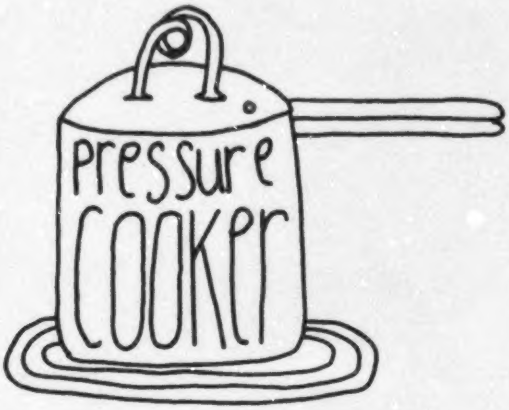
Each chicken breast half yields approximately 4 ounces of meat. One serving of ½ chicken breast fulfills the meat requirement. Garnish the chicken with ¼ cup tomato sauce and eggplant to meet half the vegetable requirement.

If using whole chicken breasts, cut into halves. In bowl, beat egg, salt, and pepper. Dip chicken into egg mixture and coat with crumbs. In large skillet or slow cooking pot with browning unit, sauté chicken in butter. Arrange eggplant and chicken in crock-pot (place eggplant on bottom or it will not cook completely). Pour spaghetti sauce over chicken. Cover and cook on low for 6-8 hours. Add mozzarella cheese. Sprinkle Parmesan cheese on top. Cover and cook 15 minutes. Makes 6 servings.

Spaghetti Sauce:

¾ cup Spanish-style tomato sauce
½ cup taco sauce
¼ tsp. oregano
¼ tsp. thyme
¼ tsp. garlic powder
1 tbsp. grated Parmesan cheese

Combine all ingredients.



Cooking With a Pressure Cooker

Pressure cooking provides convenience and has some of the same nutritional benefits of the crock-pot. The foods are cooked quickly in a pressure cooker, and the vitamins are not boiled out. Pressure cooking can also tenderize tough meats. It is a good way to cook beans quickly. Some people use it as an aid to home freezing. And there are even recipes for baking bread in a pressure cooker.

It is important to carefully read the directions that come with the cooker. Learn all of the tricks and safety rules for getting the most out of it.

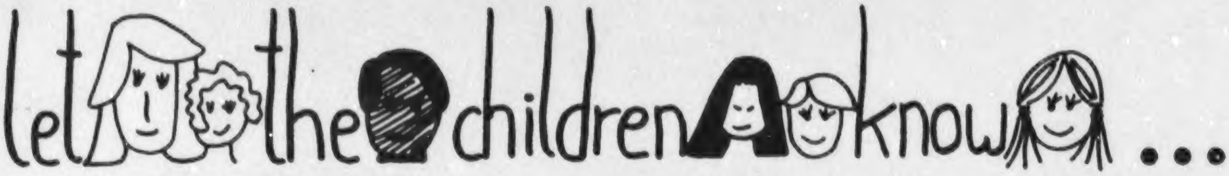
SUCCOTASH CHOWDER

1 large onion, chopped
3 tbsp. butter or margarine
1 cup fresh or frozen corn
1 cup fresh or frozen lima beans
2 cups potatoes, cubed
1 cup water
dash salt and pepper
3 cups milk
2 tbsp. flour
¼ cup parsley, chopped

USDA CCFP Requirements

One ¾ cup serving yields 3 ounces of vegetables and 2 ounces of milk. This meets more than half the vegetable requirement and one-third of the milk requirement for lunch or supper.

Sauté onion in butter in cooker until slightly browned. Add vegetables, water, salt, and pepper. Cover, set control, and cook for 2 minutes after control jiggles. Reduce pressure immediately. Add milk to vegetables and heat to boiling. Blend flour with water to make a smooth paste. Add to soup and cook one minute, stirring constantly. Garnish with chopped parsley. Serves 4-6.



let the children know . . .

- **that it's fun to help with cooking**

Involving the Children

Preschool children have different levels of cooking skills depending on age and practice. The following chart will give you some idea of your children's cooking abilities at their various ages.

Two-, three-, and four-year-olds can learn to socialize and develop skills by:

- eating and sitting at the table
- scrubbing
- dipping
- tearing, breaking, snapping

Two-, three-, and four-year-olds can develop manipulation and eye-hand coordination by:

- pouring, measuring
- spreading
- juicing
- cracking raw eggs
- mixing, shaking
- rolling with both hands
- peeling

Three- and four-year-olds are able to work against resistance by:

- cutting soft foods with a table knife
- beating with an egg beater

Four-year-olds can learn finer coordination and how to use sharp objects (with supervision) by:

- peeling with vegetable peeler
- slicing with sharp knives
- grating

Super Snacks

Here are a few snack ideas that are special because they're fun to make and eat.

Crunchy Bananas

2 bananas
½ cup wheat germ, coconut, chopped nuts, or granola
½ cup orange juice

Cut bananas into one-inch-thick slices. Push a fork, large toothpick, or popsicle stick into the banana slice. Dip in orange juice; roll in the crunchy food. Freeze extras for banana pops.

Ants on A Log

Spread celery with peanut butter. Place ants (raisins) on top.

Walking Salad

These are called walking salads because the children can make them and then take them for a walk in the back yard while they eat them.

Wrap a lettuce or cabbage leaf around one of the following fillings:

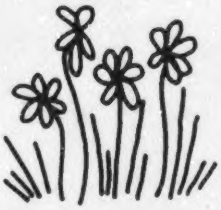
- peanut butter
- grated carrots, raisins, and pineapple with mayonnaise
- chopped apples, celery, raisins, and nuts with mayonnaise
- cottage cheese with pineapple
- cheese slice and pickle
- tuna or egg salad

Pear Bunny

Place a pear half, inside-down, on a small plate. On the small end of the pear, place 2 raisins for "eyes", and at the large ends place a grated carrot for the "tail". Cut celery into thin strips and stick them into the small end of the pear for "whiskers".

Shape-Your-Own-Pretzels

Roll out refrigerator biscuits and cut into long thin strips. Roll strips into ropes and twist into pretzel-like shapes. Bake at 425 degrees for 15 minutes or until brown.



The Good-Food Action Plan

Well, now you have it! You've read about basic nutrients, foods to eat and not eat, consumer guidelines on food purchasing, and have been given some tips on food preparation. But we're not through yet! The information about nutrition you have gained from this book won't be of any value until it is put into practice. Now it is time to develop your own personal action plan.

Choose a diet for variety and balance.

Choose foods that are your "best bets" for nutrients.

Strictly limit or eliminate unhealthy foods.

Make use of meal planning.

Prepare foods that are good for us and tasty, too.

Steps to Good Nutrition

The Good-Food Action Plan consists of five easy steps. In fact, they are so easy you have to be careful because they are habit-forming. Before you know it, you won't even think twice about replacing a soft drink with fruit juice or serving whole wheat instead of white bread. Proceed at your own risk.

STEP 1 — CHOOSE A DIET THAT HAS VARIETY AND BALANCE.

A varied diet covers all the bases. There is no **one** perfect food that contains everything we need to stay healthy. Mother Nature distributes different sets of nutrients throughout the foods she provides. Therefore, we must rely on variety and balance for a good diet.

STEP 2 — CHOOSE FOODS THAT ARE YOUR "BEST BET" FOR NUTRIENTS.

When it comes to your health, it is not a good idea to gamble on a long shot. Choose "best bet" foods — the ones that you **know** are a sure thing for nutrients. By following the Guidelines for a Healthy Food Pattern, you are playing the odds that the two categories — Foods to Eat in Generous Amounts, and Foods to Eat Regularly — will provide the best nutrition and therefore the best health. And it's a good bet!

Remember: Eat unsweetened fruits, fresh or frozen vegetables, dried beans and peas, and whole grain foods in generous amounts.

Eat lean meats, fish, and poultry, nuts and seeds, refined grain products, and lowfat dairy products on a regular basis.

Eat fatty meats, eggs, whole milk, and whole milk dairy products in lesser amounts.

STEP 3 — STRICTLY LIMIT OR ELIMINATE UNHEALTHY FOODS FROM THE DIET.

Unhealthly foods are foods that, when eaten regularly or in large amounts, could lead to health problems. These are foods that are high in sugar, salt, fat, and/or undersirable food additives. They are commonly known as "junk foods". Keep in mind that the main purpose of eating is to nourish the body. If you remember that we are what we eat, you may hesitate the next time you're tempted to eat a Ding-A-Ling.

It is much easier to eliminate an item from the diet if there is something better to put in its place. With a little creativity, the healthy snack possibilities are endless. Need a refreshing pick-me-up in the afternoon in place of a soda? Try some cold orange juice with carbonated water or try a blend of juices — orange, apple, grape — served over ice. Whole grain crackers or unsalted nuts and seeds are great nutritious nibbles to replace potato chips. Substitute dried or fresh fruits for sweets.

STEP 4 — USE MEAL PLANNING AS A MEANS OF IMPROVING THE NUTRITIONAL QUALITY OF ALL MEALS AND SNACKS.

Good, nutritionally sound meals do not come about in a haphazard manner. They take careful forethought and planning. In day care, meal planning is an automatic part of the job. You have to consider food cost, cooking time, the food preferences of your children, and the nutritional quality of the meals. Here is a perfect opportunity to practice good meal planning principles.

Remember: Plan menus to include "best bet" foods.
Plan menus to meet your time and budget limitations.
Plan for variety and balance.
Plan in consideration of both current food habits and new dietary goals.
Plan for some fun with the meals, such as an occasional food surprise.

STEP 5 — PREPARE FOODS THAT ARE GOOD FOR US AND TASTY, TOO.

Food preparation and presentation is the "proof of the pudding". Whether you're feeding day care children or the family, what matters is what's eaten. You may be confronted with some challenges in the beginning stages of diet changes. Children who are used to hot dogs and cup cakes for lunch may turn up their noses at homemade soup and muffins. But with a little ingenuity and persistence, you'll see their acceptance grow.

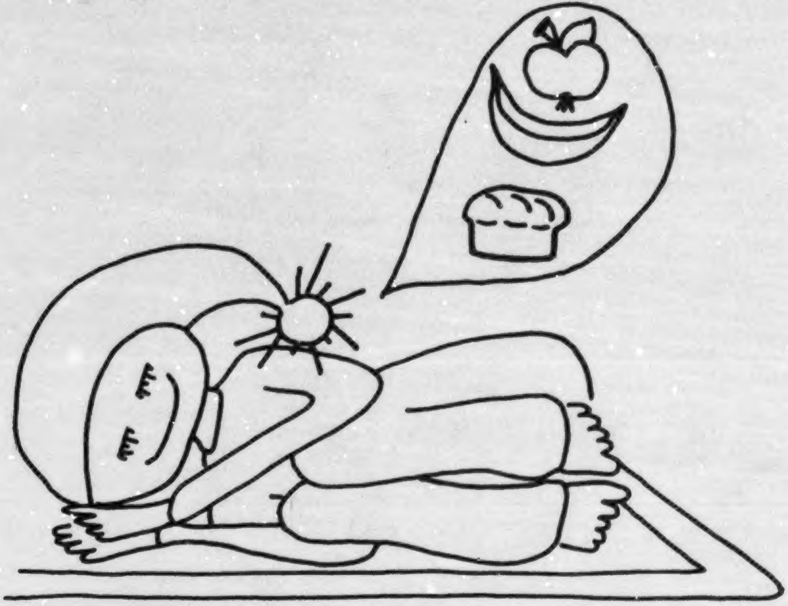
The more you cook, the more "tricks of the trade" you develop to make food appealing and flavorful. This is the "art" of food preparation. Let your creativity come out and watch the eyes light up at the kitchen table.

Start Now!
Do you ever notice how tomorrow never comes.

Everyone Benefits

Good nutrition benefits both the day care provider and the day care child. As a provider, you have to be in good health to keep up with your energetic children. Child care is not an easy job. Whoever coined the term "babysitter" couldn't have been more wrong. Who has a chance to sit?! Good nutrition will give you the energy you need. There are benefits to children, too. The foods they eat affect growth, ability to learn, and general behavior.

Children are the future of any society. Your role in child care is of utmost importance because you are influencing them during their formative years. Your time and energy spent on creative food activities will help the children get off to a good start. These early food experiences will be an investment for life.



OFF TO A GOOD START is useful for anyone in family day care. For the day care provider, it contains a wealth of practical nutrition information along with recipes specific for day care "tastes". For the children, the book includes nutrition-related activities aimed at the preschool learning level. This book has a little bit of something for everyone in family day care to help them get off to a good start!

$6.95

ISBN: 0-9606862-0-7